# DEI-DEP MAGAZINE 2021-22



DAYALBAGH EDUCATIONAL INSTITUTE (DEEMED-TO-BE-UNIVERSITY) DAYALBAGH, AGRA-282005

#### **DEI – DEP MAGAZINE COMMITTEE**

#### **Patrons**

Prof. P.K. Kalra Prof. V.B. Gupta

lacktriangle

#### **Editorial Advisors**

Prof. S.K. Chauhan Prof. J.K. Verma

•

### **Editorial Board**

Prof. V. Prem Lata Dr. Shashi Srivastava Dr. Bani Dayal Dhir Mrs. Reena Ahuja

### **Design & Layout**

Dayalbagh Press, Dayalbagh, Agra

### **Publisher**

Dayalbagh Press, Dayalbagh, Agra

**Note:** The Views expressed in the contributions appearing in this Annual Magazine are those of the authors. -- Editorial Board

## **CONTENTS**

Title/Author	
1.	Some Landmarks of Distance Education Programme of DEI
2.	Enhancing the Learning Quotient in Assessment of Higher Education in  India
3.	उत्सव जैसा प्राणवान मन प्रेमप्यारी गुप्ता, रूड़की
4.	Need for Holistic Development at Primary Level Education – A Parent's  Perspective
5.	Indian Art
6.	Importance of Sanskrit
7.	Mindfulness
8.	The Future Face of Social Media Through Metaverse

Title/Author	Page No.

9.	SrijanshalaV. Radha and V. Agam, Roorkee	49
10.	नारी सशक्तिकरण की मिसाल है बेटियां प्रेमप्यारी गुप्ता, रूड़की	51
11.	Importance of Value-Based Quality Education	53
12.	डी.ई.आई. की शिक्षा के द्वारा सम्पूर्ण व्यक्तित्व का विकास प्रेमप्यारा सतसंगी, मुरार	56
13.	Community Service As a Part of Education	58
14.	The Educational Value of Sports	61

#### <u>Some Landmarks</u> <u>of</u> <u>Distance Education Programme of DEI</u>

V.B. Gupta, Coordinator, Distance Education Programme, DEI (Deemed-to-be University)

#### 1. <u>Introduction</u>:

As the Distance Education Programme of DEI enters its nineteenth year and moves towards twenty years of its eventful journey, it is worthwhile reiterating that the programme is modest in terms of student numbers but in terms of its objectives, philosophy, content and administration, it is unique.

To begin with, the DEI entered into distance education with a definite purpose. In the words of Revered Prof. Prem Saran Satsangi Sahab, Chairman, Advisory Committee on Education(ACE), Dayalbagh and Architect of the Distance Education Programme of DEI, "the new initiative on distance education was an offshoot of our efforts on behalf of ACE to extend the benefits of vocational training via distance mode of education to remote and backward areas for empowerment of economically weak persons, especially women who did not have access hitherto to quality education at affordable low cost or even free of cost" (Systems Movement: Autobiographical Retrospectives in "International Journal of General Systems", Vol. 35, No 2, April 2006, P 158). The basic philosophy laid down in these words still guides the Distance Education Programme of DEI which embodies the following broad – based objectives:

- (i) To extend the benefit of the value-based educational system of Dayalbagh (which has been commended by educational authorities all over the country) to other centres spread across India and abroad.
- (ii) To provide need-based education: enhancing employability.
- (iii) To target geographically remote and backward areas.
- (iv) To offer education on a no-profit basis and therefore affordable.
- (v) To remain aligned with the National Programme to uplift underprivileged and backward societies and empowerment of women.

Before we take up the main theme of this article, it may be advisable to first answer the question – How has this programme been received by the students, the relevant authorities and others? We start with how the DEI alumni who successfully completed various distance education programme of DEI, viewed it.

The Alumni Survey 2018 was conducted by the Alumni Association of DEIs (AADEIs) under the aegis of the Advisory Committee on Education (ACE). In the survey, 75 questions across 8 dimensions had to be answered on-line. In all 710 respondents – all alumni of DEI – participated in this exercise, up from 452 in the year 2003, when the previous Alumni Survey was conducted under the aegis of ACE. The respondents in distance education (including ICT centres) numbered 68 – 29 male and 39 female. The gist of the Distance Education part of the findings is briefly highlighted below:

The overall score for all dimensions across all faculties of DEI rose from 3.7 on a scale of 5.0 in the year 2003 to a score of 3.9 in the year 2018. The 2018 survey showed that the Distance Education Programme of DEI stood out as outstanding in every dimension of assessment, scoring a grade point of 4.3 which was the highest compared to those of the DEI faculties and Technical College which ranged from 3.7 to 4.1.

The overall scores in different dimensions for Distance Education are as follows:

- (I) Teaching/Teachers 4.3, (ii) Evaluation 4.3, (iii) Curriculum 4.3,
- (iv) Resources 4.0, (v) Library 4.1, (vi) Infrastructure 4.0,
- (vii) Values & Innovations 4.8, and (viii) Other Areas 4.3

A very meaningful exercise will be to go for a detailed examination of the student responses to all questions in each dimension. Due to constraints of space; we illustrate only for the first dimension, viz. Teaching/Teachers, which had 17 questions. The two questions with the highest and lowest ratings were:

**Highest:** Teachers are regular, and punctual in conducting the class – this earned a grade point of 4.5

**Lowest:** Teachers are impartial in the class – this received a grade point of 3.9

Besides the DEI alumni, the programme has received accolades from several other quarters. Senior officers in the erstwhile Ministry of Human Resource Development of the Government of India, with one of them (who was MHRD nominee in the Governing Body of DEI) calling the programme a role model. Senior functionaries of accreditation / Statutory Bodies like the erstwhile Distance Education Council (IGNOU), UGC, etc. and several dignitaries including eminent visitors to DEI, have also placed the distance education programme of DEI on a high pedestal.

Most Revered Prof. P.S. Satsangi Sahab, when inaugurating the Colombo Study Centre of DEI in Sri Lanka on 6<sup>th</sup> August 2011, from Dayalbagh, made the following significant observation: One of the landmarks for achievement is our emphasis on vocationalisation of education. Already we have a fairly extensive and intensive Outreach programme which is very impressive and covers almost the entire country and several countries abroad too.

In this article, an attempt will be made to highlight some substantive and innovative features of the distance education programme of DEI which have helped a large number of students by making it possible for them to have a meaningful and successful career.

#### 2. <u>Blended Education Mode</u>:

Right from its inception in the year 2004, the distance education programme of DEI has been designed and developed by DEI faculty in the multi-media blended education mode. This mode of distance education supplements the self-study component with e-lessons captured on DVDs and face-to-face counselling sessions by qualified and competent faculty, which contribute significantly to the learning process, particularly of academically weak students as they assist them in clarifying concepts and clearing doubts.

Each class starts with a video CD/DVD of about half an hour duration in which the subject matter of a particular lesson is presented in an interesting manner with a lot of support from visual images which arouse the interest of the student in the subject and motivate him to gain further knowledge in that area with the help of printed lessons. Both the audio-visual and the print material are made

available to the study centre by DEI.

The two to three hours of classroom contact carried out for six days in a week for fifteen working weeks in a semester is what makes the distance education programme of DEI unique.

#### 3. **Vocational Education and Training:**

Dayalbagh has been a pioneer in providing Vocational Education and Training in India. The Model Industries were established in October 1917 in Dayalbagh. Manual training after school hours was started for selected students in the Model Industries workshops in 1921. The Technical School was opened in 1927 and it developed, by 1930, into a College provided with spacious buildings and wellequipped laboratories and workshops. Soon after the Government's sanction, the 'Leader' of April 25, 1930, carried a full article on 'The Dayalbagh Technical College'. It started by pointing out that while the numerous Technical schools in the province run by the government cater to the requirement of mechanics, the college of Electrical & Mechanical Engineering in the Banaras Hindu University is training men only for the top jobs. The article then continued "...Between the supervisory engineer and the ordinary mechanic there is a class of skilled workmen which might be called the 'brain' of all industries. The duty of this class of workmen is to make special tools, to adapt machines, and to detect and rectify faults in them. Without the assistance of these people, the top officers and ordinary mechanics can do nothing... Dayalbagh desires to fill this gap by reorganizing the Technical School by making provision for a four year course of intensive practical training. The Dayalbagh Technical College had the potentiality of becoming a unique institution in the province-an institution where students of all castes and creed can live and learn together under ideal conditions and become skilled workmen of high caliber."

The Centre for Applied Rural Technology (CART), established in the year 1999, offers a large number of vocational courses through its Certificate level vocational programmes in modular form. These programmes are employment-oriented and offered at a nominal cost. By creating livelihood opportunities, the CART, a self-financing Vocational Training Centre of the Institute, makes a valuable contribution to the economic development and self-help. The Centre is well-equipped with state of-the-art facilities to train students adequately, thus enabling their good placement.

The Distance Education Programme of DEI makes a significant contribution to vocational education and training activity of the Institute. Starting in 2004-05 with one programme at certificate level being offered to 16 students, by the year 2016-17, it had grown to 10 programmes at certificate level being offered to 1789 students in the academic year 2016-17. As shown in the following Table, the total student strength then was 2961 and it is obvious that the certificate level programmes, which are all vocational, dominate the distance education programme of DEI.

Level	Number of Students	
Post-graduate degree	434	
Under-graduate degree	428	
Certificate	1789	
Other	310	
(including PG diploma)		
Total	2961	

In addition to the certificate level vocational programmes (at present their number is 12), there are nine short term modular vocationed courses, each of 9-week duration, which are being offered in the distance mode.

The student enrolment in distance centres in vocational programmes, which are predominantly practical, came down significantly during the Covid-19 pandemic as the data on total number of students in certificate level vocational programmes given below shows:

Year	Enrolment
2020-21	297
2021-22	468
2022-23	434

We are hopeful that normalcy will soon be restored.

The Institute offers more than 20 B.Voc programmes and 6 M.Voc programmes which are also available in the synchronous mode and are taken by students in distance centres.

#### 4. High Quality Study Material:

One of the requirements for recognition of an Institution for offering programmes in the distance mode was that the printed study material will be in the self-learning format, as prescribed by IGNOU.

Accordingly, a three-day workshop on "Development of Self-Instructional Print Material (SIM)" was held in DEI on Nov. 26-28,2006 in which two resource persons from the Staff Training and Research Institute of Distance Education (STRIDE), IGNOU, New Delhi, gave a series of seminars on various aspects of this subject. Over 100 participants from DEI and from the various teams which had developed the study material for the programmes being conducted in Study Centres and also those involved in developing course material for courses planned for the future, attended the workshop.

Another important step was taken to ensure that the literature to offer quality education of the highest standard was ready. A committee was constituted to examine the course and credit structure of the various programmes being offered in the Distance Mode with the view to standardize them. After completing the task, a presentation was made in the ACE meeting held on Dec. 2, 2006. As a result of this exercise, standardization of the course material and of the credit structure for all the five vocational programmes was achieved. The print material for the various courses offered by the DEI in Distance Mode was reformatted to fall in line with IGNOU's norms for SLM and was submitted to the Academic Council of DEI for approval. As a result, vast amount of literature in the self-learning format was generated. It was also decided to get the books published by Dayalbagh Press and these have since been assessed and found satisfactory by the UGC – appointed team. These are handed over to the students (when they register for the semester) in the Study Centre free of cost.

Against the above backdrop, it is interesting to recall that in a function arranged in the Science faculty hall of DEI to distribute certificates to the students of the three distance centres of Agra, Prof. V.G. Das, the then Director of DEI made an important point. He told the gathering that the distance students scored over the regular on-campus students on two counts: first, they had face-to-face sessions with persons who had invaluable industrial/corporate experience-generally at quite senior level-and this experience was shared with the students. Second, they had access to printed study material and e-lessons prepared by expert teams

which included faculty members of DEI and academics from other institutions and also subject experts from industry. Thus the distance students enjoyed the best of both the worlds.

It is perhaps not widely known that in the past few years, we have generated invaluable printed study material, often in the form of booklets in a number of areas which are need-based and have proved to be useful to our students. These have been in great demand on the campus too and some departments were of the view that the regular students should be allowed to buy them at their cost price (which was very low as they were all printed in the Dayalbagh Press). The matter was referred for Higher Guidance and direct selling of the printed study material was not approved. We were directed to supply these to the libraries in the departments against their request for use by students. We had considerable demand from a number of deptts/teaching staff for these books and we have been very generous in making them available to their libraries and to faculty members.

The secret of their success is because of several factors. Some of these are as follows:

- They are written in simple, easy-to-understand style and language
- The format is designed for self-learning
- The contents are highly focussed and do not deviate from the prescribed syllabus
- They contain answers to frequently asked questions.

Our warehouse in the HQ has a total capacity for storage of something like 25,000 books. We issue books every semester, which are given free of charge to the students. These were earlier handed over to students enrolled for certificate level and degree level programme. However, the situation has now changed and while the printed study material continues to be given in the form of printed books to certificate level students, 'soft' copies are provided to degree level students. However, with the onset of university level degree programmes being offered in the online mode, the situation has changed with the provision of study material being uploaded on the e-learning platform (Vidya Prasar) of DEI, which can be accessed by the enrolled students.

#### 5. <u>Setting Up of Study Centres</u>:

Two proposals were submitted; the first to the erstwhile MHRD – for amendment of DEI's Memorandum of Association (MOA) in 2006 and the second to the erstwhile Distance Education Council for recognition of DEI as a Distance Education Institute in 2007.

Approvals from the government were received in 2007- the first in July 2007 from UGC/MHRD to add two clauses to our MOA- which permitted the university to offer programmes in the distance mode and open Study Centres in India or abroad. The second approval was obtained from the erstwhile Distance Education Council (IGNOU) in Aug, 2007 granting provisional recognition to the University to offer programmes in the Distance mode for one year with no restriction on territorial jurisdiction.

Anticipating approval, a considerable amount of preparatory work had been done to establish new Centres and develop new programmes. A document entitled 'Requirements Models' was framed which laid down the basic requirements in terms of space, infrastructure, personnel and finances for setting up study centres for theoretical and predominantly – practical programme as well as for ICT centres: The basic requirements for opening a Centre were identified as availability of (i) adequate space in an appropriate location, (ii) Mentors / facilitators, (iii) Students, (iv) Centre-in-charge, and (v) Communication means.

On Sept 3, 2007 the Most Revered Chairman of the Advisory Committee on Education, Prof P. S Satsangi Sahab in His address on DEI's Distance Education Plan laid down the Road Map for the programme emphasizing the issues that needed urgent attention, drawing the priorities to be followed and urging caution, e.g. by checking with local authorities, wherever the programmes are started in Building other than schools so that adverse reaction is avoided.

It may be added that the important features of the Education Policy of Dayalbagh were embedded in the Distance Education Programme of DEI also. While inaugurating the DEI's Women's Polytechnic on 26th July 2004, Revered Prof P.S. Satsangi Sahab made the following observations: "The mission objective of the Dayalbagh Educational Institute is to evolve a complete man, i.e. a well-rounded person. In view of this, I submit that the core courses of DEI should be

introduced in the certificate courses offered in the Technical College as well as in the certificate courses proposed here" (Dayalbagh Herald, August 31, 2004). Core courses, which promote the inculcation of values amongst students, are now an intrinsic part of the programmes offered in the distance mode.

In the meantime, proposals had been received from all over the country for opening new Study Centres and starting in them one or more of the four vocational programmes, viz. Motor Vehicle Mechanic (4 Wheeler), Textile Designing & Printing, Modern Office Management and Secretarial Practice and Wireman. These proposals had been designed keeping in view the following guidance received from the Revered Chairman of ACE- "Right now, planning should be done with what already exists, going only for minimum new structure. The infrastructure needs can be minimized by staggering the time schedules for different programmes". In all, proposals for 22 new Study Centres were approved on the basis of guidelines listed earlier.

Another preparatory step was the organization of a 3-day training workshop in DEI on Oct 23-25, 2007 for distance education academic staff who were to man the programmes in different Study Centres in India starting on Oct 29, 2007.





**DEI Study Centre, Muzaffar Nagar** 

**DEI Study Centre, Surat** 

On 29th Oct, 2007 the 22 new Centres were launched by organizing an orientation programme from the Multimedia Centre in DEI which was

Academic Year	Number of Programmes	Number of Study Centres in India	Number of Courses	Number of Students
2004-05	1	1	10	16
2005-06	1	3	10	45
2006-07	4	5	32	74
2007-08	5	27	44	542
2008-09	7	64	69	1640
2009-10	9	70	118	1789
2010-11	9	75	146	2022
2011-12	13	76	170	2502

transmitted to all the Study Centres. This heralded the end of the successful field testing phase and the start of a new chapter in the history of Distance Education Programme of DEI.

Subsequently, following the procedures described and the guidelines clearly spelt out, the distance education programme continued to make good progress. Much before the 2007-2008 session was over, a new detailed proposal for continuation of recognition for 2008-2009 was submitted to DEC, IGNOU. The approval came in August 2008 and a considerable expansion of both programmes and Study Centres took place in that year since we had been told by DEC, IGNOU that there was no restriction on territorial jurisdiction.

The chart below summarizes the pattern of growth of the Distance Education Programme of DEI starting from the field testing phase and then moving to the expansion and consolidation stages.

# 6. <u>Alignment of Certificate Level Vocational Programmes with Equivalent NCVT (ITI) Programme</u>:

The one-year Certificate Level Programme on 'Wireman' was started in the distance mode by DEI in 2007. On 1st Jan, 2010, the Centre-In-charge of DEI Study Centre at Authoor (Tamil Nadu) wrote to us that the Certificate awarded to students completing the Wireman Programme from ITI's and Polytechnics entitled them to Government and Private Jobs, some of which were denied to our students. To correct the situation and to provide our students with a level playing field, a proposal was made to the Tamilnadu Government, on 27th April, 2010 requesting their assistance. The Commissioner of Employment and Training, Chennal replied on 7th Aug, 2010 that the equivalence of the DEI programme with that of the National Council for Vocational Training (NCVT) could be decided only by the office of the Director General of Employment & Training (DGE&T) New Delhi. We were also told that the duration of the programme needed to be brought at par with that of NCVT, viz two years.

When the matter was referred for Guidance to the Revered Chairman of the Advisory Committee on Education, the following directions were received:

- (I) The reasons as to why our programme is of shorter duration must be examined.
- (ii) In Vocational Certificate Programme, conformance with equivalent ITI or NCVT Programmes must be ensured while retaining our good features. Students may take up practical training along with the course work in the 2 years programme. The course work may be restructured by

- eliminating those courses that are a part of the High School syllabus and introducing new courses.
- (iii) We may retain the 1 year programme for Wireman and Electrician. We may also start a 2 year programme equivalent to NCVT's Programme in all respects Additional good features like good practical exposure may be retained but NCVT syllabus may be included in totality.
- (iv) The same programme would be introduced in the campus and then extended to DE Centres.
- (v) The Motor Vehicle Mechanic (4 Wheeler) Programme may also be reformatted to bring it at par with NCVT.

The process of alignment of our Certificate Level Programmes with the corresponding NCVT Programmes was carried our taking into account the following four features:

- i. Title of the programme
- ii. Programme duration
- iii. Eligibility for admission, and
- iv. Programme structure

It was observed that in general the DEI syllabi are strong in basic concepts. However, for engineering trades like Wireman, Electrician and Motor Vehicle Mechanic, courses on Engineering Drawing and Workshop Calculations and Science had to be added while core courses dealing with Employability skills and IT Basics had to be added to all Certificate Level Programmes.

The process of alignment also led to 2 year Wireman and Electrician Programmes being introduced. However, the one year programmes were retained and the student could opt for either. This has proved to be a very useful innovation.

Having completed the process of alignment, a presentation before the Director General of Employment & Training of Government of India was made on 22nd Feb, 2012 by a senior faculty member of DEI in which all aspects of equivalence of the proposed Wireman Programme of DEI and that of NCVT were highlighted. The DG was highly appreciative of the DEI's Wireman Programme

and was quite satisfied on the issue of equivalence. He told the DEI team to submit their proposal for equivalence.

The proposal of DEI had two components. The first was for granting equivalence to nine of our Certificate Level Programmes – for each programme a comprehensive booklet highlighting equivalence of duration, eligibility, working hours, syllabus and lab and human resource infrastructure was submitted. The second component was seeking waiver of the various requirements that private candidates have to fulfil before they are allowed to appear in the All India Trade Test, eg. Five years experiences, etc.

The proposal was filed with the DGE&T in July 2012. A sub-committee approved by them recommended that our proposal be put up for consideration of NCVT in their next meeting. The final decision on the proposal is still awaited.

# 7. <u>Modules, Modular Courses and Modularization of Certificate Level Programmes:</u>

Modules are short-term courses whose duration may vary from 1 week to 20 weeks. They are designed to impart a certifiable skill and are often demand-driven and employment – or entrepreneurship-oriented.

During the Satsang Tour in the summer of 2011, the mentors of two Textile-related programmes (Textile Designing & Printing and Dress Designing & Tailoring), both of which were being offered at the DEI Study Centre, Chennai, suggested that if the basic features of these two one-year certificate programmes could be amalgamated into a one-year programme, the students would learn the complete process of apparel manufacturing. The Revered Chairman of ACE was pleased to indicate that the best approach to do this would be to develop appropriate modules based on these two programmes. Accordingly six such modules, each of 8 – week duration were developed – three by the Programme Coordinator of TD&P and 3 by the Coordinator of DD&T. The three modules in TD&P were Block Printing, Screen Printing and Tie & Dye. The three modules in DD&T were Sewing Operations (सिलाई की क्रियाएं), Children's Clothing and Hand Embroidery. A uniform, standardized modular structure was formulated in which each module had 3 courses, each of 3 credits.

Rajahmundry in South India is well known for printed frocks and garments. The first modular courses of DEI were offered by the Rajahmundry Study Centre

starting in July 2012. These were highly successful, mainly as the mentor for these modules was very well qualified and experienced in both TD&P and DD&T. This led to quite a few centres offering this combination of modules in their centres.

The first module on Block Printing was also offered in five Study Centres of North America, in New York, Chicago, Atlanta, San Francisco and Toronto.

In 2012, M/s Honda Motorcycle and Scooter India Private Ltd, in whose production plants a number of students of DEI-DEP are employed, suggested that DEI may consider training students in the fields of Welding and Industrial Painting to meet the shortage of skilled workers in these areas. The Revered Chairman of ACE indicated that initially modular courses could be designed in these two areas for certificate holders in any engineering trade. The 10 – week modules in Welding and Industrial Painting commenced from January 2013 in the Main Campus and in some DEI Study Centres.

Subsequently 10-week modules were offered in (i) Basic Electronics and Repair of Inverter, UPS and Stabilizer, (ii) Operation and Maintenance of Solar Power Plants, and (iii) Bamboo Application Technology. A number of textile-related modules were also offered in Study Centres.

The Revered Chairman of the Advisory Committee on Education had on several occasions emphasised the need to modularize certificate level programmes. The following quote from the Minutes of ACE Meeting may be noted in this context:

Certificate courses are only a set of modules put together for certification. Thus the certificate courses can be modularized in the form of modules with certifiable skills. As and when the candidate completes all the modules, the student gets an additional certificate. Otherwise they get the certificates for the modules they have completed.

Accordingly, the two close-variants of Cutting & Sewing and Dress Designing & Tailoring – the two popular certificate level programmes – were modularised and offered in a number of study centres from the session 2014-15. Each programme had four modules each of 9-week duration out of which two were common for the two programmes. Thus a student completing 4 modules was entitled to one additional certificate while a student completing six modules was entitled to two additional certificates and these could be taken in one year.

Subsequently all the certificate level programmes were modularized.

The centres viewed modularization as an innovation with great potential and suggested a number of improvements.

Amongst the positives, the most often expressed advantages of the modular system are first, that it makes the learning process much more intense and focussed since the subjects are now completed in a quarter (9 weeks) rather than in a semester (or two quarters) as was the case earlier and second, for the same reason the examination process becomes more amenable for the student. The students have been quick to realise these advantages and have apparently become more regular in attendance, more involved in studies and more disciplined, in several Centres. In a limited number of centres this is not the case.

The next positive feature highlighted by several centres is the introduction of the element of flexibility in the system which allows a student to acquire the type of skill he desires by choosing the right module with the right skill set and the right time frame. The successful completion of each module entitles the student to a certificate and the award of a consolidated certificate after completion of four prescribed modules. This has proved to be a real winner.

The centres also pointed out a number of shortcomings in the existing system - some of these are listed below:

- i. A number of centres felt that the course content distribution in different modules of some certificate programmes needs to be modified / revised to become student-friendly.
- ii. Several centres pointed out that the content to be covered within 9 weeks is too vast in most programmes and mentors and facilitators face considerable difficulty on this account. This creates academic anxiety in the students and one centre termed this as fear psychosis. A centre pointed out that students in their centre now spend much less time on self-study.

The success of the certificate level programmes in the modular format has led to the decision to re-format the degree level programmes in the modular format. The Revered Chairman of Advisory Committee on Education was pleased to call a module as a 9 – week miracle.

#### 8. <u>Transition to Online Mode of Education</u>:

#### 8.1 Background

The Distance Education Programme of DEI has made extensive use of the State-of-the-art communication technologies right from its inception. An existing international world-wide video streaming network with the capability to reach 200 learning centres all over the world, was used to conduct the post-graduate diploma in Theology (PGDT) programme in North America from Dayalbagh in the year 2006. In addition to this, the Indian space Research Organisation (ISRO) had sanctioned an Edusat Channel to DEI so that live lectures could be transmitted to all its centres from DEI with facility for interaction and 55 DEI study centres were equipped by the year 2008-09 with Satellite Interactive Terminal (SIT) installations and the Multi-media Laboratory of DEI with teaching-cum-SIT – receiving and the DEI Programme Coordinators of various distance education programmes interacted with the students and faculty of the study centres across the country once every week from the Multi-media laboratory. During the Covid-19 Pandemic, digital teaching – learning process became a norm.

The UGC notification dated 4<sup>th</sup> September, 2020 on the UGC (ODL programmes and On-line programmes) Regulations 2020, was uploaded on their website on 7<sup>th</sup> September, 2020 in supersession of the UGC (ODL) Regulations, 2017 and UGC (Online) courses or programmes) Regulations 2018.

It may be recalled that provisional approval for recognition was given to offer distance education programmes by the erstwhile Distance Education Council for the academic year 2007-08 without any restrictions on territorial jurisdiction and this was extended to the academic year 2008-09. This was followed by the visit of a tri-partite UGC | AICTE | DEC Joint Committee to DEI on 14 May, 2009 and approval of 9 programmes (7 at certificate level and 2 at first degree level) obtained on 09.09.2009. A five member Joint Committee visited the Institute in May 2010. Five programmes (3 at PG diploma level and 2 at PG degree level) were approved in July 2011 by the Tripartite Committee.

With the promulgation of UGC (ODL) Regulations 2017, the scope for recognition by UGC was restricted to only UG degree and PG degree programmes but not for certificate and PG diploma programmes as was done earlier.

Another important event was the meeting of the Advisory Committee on Education on May 16, 2020 in which the Revered Chairman of ACE, Prof. P.S. Satsangi Sahab, made the following significant announcement directing that the Institute should opt for "online education (at the degree level) which in our case differs from other places in being supervised rather than managed from Headquarters without presence of supervisor at various locations".

The University Grants Commission had circulated an updated list of 38 Higher Educational Institutions on 11th June 2021 which are entitled to start full-fledged Online Programmes without prior approval of the UGC, as per provisions stipulated under regulation 3(B)(a) of the University Grants Commission (Open and Distance Learning Programmes and Online Programmes) Regulations, 2020.

Out of 38 Institutions, three Institutes are in Uttar Pradesh and Dayalbagh Educational Institute is one of these three Institutes. Institutes which either had NAAC Score of 3.26 or above or were in the Top 100 Institutes of NIRF Ranking in two out of past three cycles, were eligible to apply under this special category. DEI qualifies both these criteria. An Institute will be permitted to keep offering ONINE MODE Education till they continue to meet the above-mentioned criteria of NAAC Score or NIRF Ranking.

Under this special category an Institute can offer 3 UG and 10 PG Programmes in Online Mode to start with.

DEI has been permitted the following 3 Under Graduate and 2 Post Graduate Programmes to be offered in the session 2021-22:

- 1. B. Com (Hons)
- 2. BBA
- 3. BA(Hons) Sociology

- 4. M.Com, and
- **5.** MA(Theology)

The permission is subject to DEI's point-wise compliance of the Programmes and Online Programmes) Regulations, 2020 regarding details

of e-Learning Platform including creation of content according to the Four Quadrant Approach.

#### 8.2 Interaction with existing Centres and other experts in the Regions

To make the Centres /their Mentors and other experts in the Region aware of this major transformation from ODL to Online Mode, numerous Video Conferencing sessions were conducted (in a batch of approximately 10 Centres at a time) with all the Centres concerned, over a period of one week. The Centres were explained in detail as to what is involved in the transition to the Online Mode for UG/PG Programmes. The need to make this change, advantages (specially in the current Covid-19 scenario), scope of increase in the student strength and the benefit now reaching the students living in remotest location (where we may not have our current presence) was explained. Also, the need to have international level of e-Learning material created over a period of time, specially since DEI is now eligible to enroll international students as well. The need is to focus on the Online Mode of Education to achieve the target of student strength specified in our Vision Document 2032 as there will not be much increase in the Main Campus but outside and thus the experience gained through our distance education online programme will be valuable. The change in the roles and responsibilities of Centres-in-Charge, Mentors, Facilitators was also explained. Useful suggestions were received during these Video Conferencing Sessions with the Centres and the experts.

The Centres suggested that minimum/uniform infrastructure required (ICT and other infrastructure) at Centres to operate as Examination Centres may be carefully specified and made available at the examination Centres at the earliest.

#### 8.3 Salient features of ONLINE MODE of Education

Unlike in ODL programme where there are restrictions on Territorial Jurisdiction for the Deemed-to-be-Universities, in Online Mode of Education, there is no restriction and hence students from any part of the country can take admission under Online Mode. Further, with a NAAC Score of 3.26 or more, the Institute can register international students also. So

students from any part of India and abroad can take admission into any of the five programmes (mentioned above) in DEI.

However for appearing in various examinations, student has to come to the nearest Authorized Examination Centre of the Institute. The Authorized Examination Centre shall be equipped with infrastructure as specified in the UGC Regulations 2020. For convenience of the students, DEI has already established more than 80 Examination Centres across the length and breadth of the country and may consider adding additional Examination Centres if and when required and approved. Further, to ensure highest standards of conduct of exams at the centres and to match it with the standard of invigilation at the main campus, the examination sessions are covered under CCTV at the Examination Centres. The examinations are conducted in SUPERVISED MODE at the Centres, which means that authorized invigilators must be present at each examination centre during the conduct of examination and all Centres are online video connected and monitored from the CONTROL ROOM established at the Main Campus. Examination Centres remain logged on to the CONTROL ROOM throughout the duration of the examination. The Control Room is also manned by 5 Observers/Invigilators from different Faculties (including a Supervisor), who keep a close watch on the conduct of examination at all Centres remotely.

Before starting any programme, the Institute is required to upload 3 semesters' e-Learning Material on their Portal (on Vidya Prasar which is DEI's e-Learning Platform) for UG Programmes and 2 semesters' e-Learning Material for PG Programmes. This is required to be done before the beginning of the Session, so that students can have online access to the lessons. The e-Learning Material has to comply with the Four Quadrant approach defined by UGC.

To monitor / mentor the students, every student is assigned to a Mentor/Facilitator who constantly guides the student and also does the periodical assessment of the students and regularly interacts with them. Mapping of each student to a mentor is done before the start of the session. Since the mentoring is done online, the mentor may or may not be in the same city, though we endeavour to assign a mentor in the same city, wherever possible.

#### 8.4 Creation of e-Learning Material for the five approved programmes

The task of creation of the Online e-Learning Material has been taken up by the concerned Departments/Faculties and the creation is at different stages for each programme. The Departments/Faculties have been ably supported by the Industry Experts and erstwhile Mentors / Facilitators of these programmes in various DEI centres. For various programmes, the following number of Experts / Mentors / Facilitators have offered their services to respective Faculties:

a. B. Com (Hons) & M. Com : 134
 b. BBA : 195
 c. BA(Hons) in Sociology : 8
 d. MA(Theology) : 30

Their services are of great help to the programme coordinators.

#### 8.5 Proposed Admission Process

As per the existing policy of the Institute, the admission process will continue to be handled by the Dean of the Faculty to whom the Online Programme belongs.

After the Main Campus seats are filled, the students who opted for Online Mode also, will have the opportunity to be considered for admission to Online Mode. Candidates who did not opt for Online Mode in their application will not be considered for admission to the Online Mode of Education.

The admissions made were as follows:

S.	Online Degree Programme	2021-22	2022-23			
No.		Through DEI Entrance Test	Through DEI Entrance Test	Through CUET *	Total	
i.	BBA	88	75	62	137	
ii.	B.Com (Hons)	106	42	55	97	
iii.	B.A. (Hons) in Sociology	5	1	7	8	
iv.	M.Com	48	30	9	39	
v.	M.A. (Theology)	27	7	0	7	
	Total	274	155	133	288	

<sup>\*</sup>Common University Entrance Test

# Enhancing the Learning Quotient in Assessment of Higher Education in India

Dr Y V Subrahmanyam, Center-in-Charge, DEI Information Center, Secunderabad

#### 1. Introduction

During recently concluded National Conference on Dayalbagh Science for Consciousness [26-29; September; 2022], Most Revered Gracious Huzur Dr. Prem Saran Satsangi Sahab has made the ambrosial remarks: "Learning for learning, Learning for living, and Living for learning". Thus, learning is a continuous activity in our lives. As time progresses, the best evaluation for learning is not marks/grade, but moving from gathering to gaining knowledge, apply and slowly acquire wisdom for gaining authority, get recognition and feel elite in the given domain. (Maslow's top of the pyramid).

During school days; say till eighth class, we almost learnt to learn without any inhibitions, and competition, everything in more playful way, enjoying, sharing, mixing, and playing with all peers. This state can be defined as, learning for learning.

From the ninth grade, slowly parents, peer pressure, social comparison starts and brings psychological changes in thinking and paradigm shift in our mindset. With that bent of mind, we start learning with more focus to get higher marks than learning per se, keeping an eye on highest percentage of marks, ranks etc,.( the evaluation system plays significant role in ensuring learning + assessment in right combination). Various entrance tests like NEET, JEE, CAT, CLAT, etc, add fuel to the fire in the academic learning career of a student, focusing more on ranks than learning. As one gets into Engineering /Management or similar courses, securing job gets the focus ( majority) and thus getting ranks, highest grade become inevitable, making it learning for living.

As one is employed, both the organization as well individual will be looking for career development and related planning. At this juncture, either departmental examination, some formal certifications from professional institutes get weight age. The NEP -2020 gave scope for online learning of many formal degrees also. In addition there exist many Internationally acclaimed certifications, for ex: PMP, CQA, ISO auditor, TQM trainer etc, The individual is keen on learning at this stage, as it aids and enhances the knowledge of the learner, get

confident in applying, perform better at the new role, get more confident, and have detailed conceptual understanding to apply to various contexts, guide the team or in some cases become an entrepreneur. It sure, raises the elite feeling and working style by giving growth opportunity. This phase can be equated to living for learning, and it's continuous.

The changing technology, business environment, new roles and responsibilities, changing Acts, demand continuous learning and needs to be continued life long, based on one's own interest. The highest focus on up skilling (Machine learning, Data Science, etc.) during pandemic was one similar event. One needs to constantly learn during working to excel at work (think of Academicians, Lawyers, Doctors, and Auditors etc.) Even organizations as a whole are keen on learning and thus the coined phrase: 'Learning organizations'.

#### 1.1. What is meant by learning?

......to gain knowledge or skill by studying, from experience, from being taught, etc.—Oxford dictionary

......is "a process that leads to change, which occurs as a result of experience and increases the potential for improved performance and future learning" (Ambrose)

......Learning can be defined in many ways, but most psychologists would agree that it is a relatively permanent change in behavior that results from experience 16

 $......k nowledge\ or\ skill\ acquired\ by\ instruction\ or\ study-Marriam\ Webster$ 

.....to get knowledge or skill in a new subject or activity - Cambridge dictionary

#### 1.2. Learning assessment

Today with New Education Policy-2020, there are more roads to learning and these include: Regular, distance, online distance education, MOOCS, SWAYAM etc,. Some of them lead to formal degrees, some can be ended up with only learning(but have some MCQ etc for self assessment within the course). Thus assessment is a vital organ in the overall learning process. UNESCO defines learning assessment as the process of gathering and evaluating information on what students know, understand, and can do in order

to make informed decisions about next steps in their educational process<sup>7</sup>. As per UGC, **Assessment** is the process of collecting, recording, scoring, describing and interpreting information about learning, and **Evaluation** is the process of making judgments based on evidences and interpretations gathered through examination and assessment and on the basis of agreed upon criteria<sup>4,13</sup>. Evaluation during formal school learning consists of series of formative tests monthly/periodically, midterm and final year end examinations. The formative tests can be of various models, but most commonly short time class tests. Recent changes include: Daily home assignments, class assignment, class quiz etc.

In India, the higher education has so far been largely examination oriented. The examination pattern that currently exists in University structure, test memory learning. Thus, students enrolled under the higher education system are not coming out with the desired level of knowledge and expertise. Question is, whether the tests addressed real learning or ended up as rote learning tests? UGC laid stress on **Learning Outcome Based Education (LOBE)**, defining it as -Adherence to student-centric learning approach to measure student's performance based on pre-determined set of outcomes. And **Programme Learning Outcomes (PLOs):** "They represent the knowledge, skills and attitudes a student should at the end of the programme"

#### 2. The present scenario

As we do analytics with the data available for last 10 years for Engineering; Management and some professional courses, the results are not too pleasing to ensure that learning is likely happening. Where is the gap? The average pass percentage of engineering students has been 42-56 for the last 10 years. (Fig-1). Are students joining engineering course by family and societal pressures? What best will be the future of those who ultimately clear the course (say around 50%) subsequently. Engineering job secure percentage also has been 40-62 % (Fig-2) for the last 10 years. Means around 45% are not found fit for jobs, though declared successful. Are evaluation mechanisms any reason for not able to rightly assess the learning of an individual? Are some of them turning as entrepreneurs? Are they moving to do low skilled jobs?

Now let us analyze Management student's related data. Management pass percentage has been 40-52% (Fig -3) for the last 10 years. Similarly the management job percentage out of successful candidates has been also 40-61% (Fig-4). This also leads us to think about the reasons for such possible low pass percentage and equally not favorable job secure percentage. The same

questions like: Are evaluation mechanisms any reason for not able to rightly assess the learning of individual? Are some of them turning as entrepreneurs? Are they moving to low skilled jobs? get repeated here.

These common questions make us think, how best we can enhance the learning quotient in each candidate's academic career independent of pass and job securing. This may help them turn out to be small scale entrepreneurs, confident professionals and knowledgeable youth. (This aspect needs to be equally focused when we look at learners from ODE- open and distance education also; as UGC has approved ODE on par with regular courses)

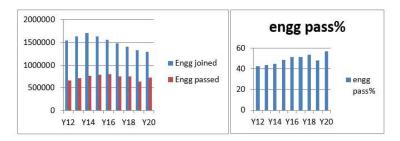


Fig.1 – Engineering joined Vs passed Source: https://facilities.aicte-india.org/dashboard/pages/dashboardaicte.php

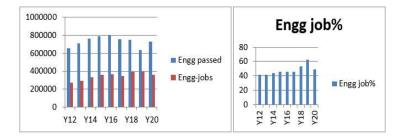


Fig 2- Engineering passed vs. Job secured Source:https://facilities.aicte-india.org/dashboard/pages/dashboardaicte.php

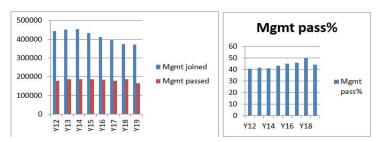


Fig.3 – Management joined Vs passed

Source: <a href="https://facilities.aicte-india.org/dashboard/pages/dashboardaicte.php">https://facilities.aicte-india.org/dashboard/pages/dashboardaicte.php</a>

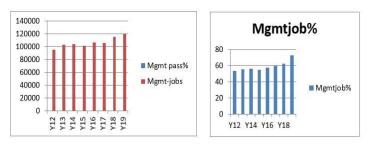


Fig.4 – Management passed VS job secured

Source: https://facilities.aicte-india.org/dashboard/pages/dashboardaicte.php

Let me draw your attention to three most popular, job oriented certificate courses in India: ICWA, ICAI, and ICSI. It is equally surprising to note that, the average pass percentage for ICWA stand at around 18% in the last 4-5 years. Similarly the ICAI pass percentage stands at 14-16% for the last five years. The pass percentages for ICSI are slightly better standing at 18-20%. Similar questions remain here as earlier. Since these are not formal institute degrees, not much attention or discussion has been seen. 6,8,9,10,11,12

What are the reasons? Do less interested students with no focus join these courses? Are pedagogy and evaluation methods, not helping them to come out with flying colors in learning?

#### 3. Actions by UGC and Corporate world

Even after joining in the job(first job), most of the corporate companies conduct formal induction programs varying from 1 week to 3 months with rigorous training, and evaluation. Courses like CA have articles etc, which lets the

individual associate with seniors for good amount of time to learn more practically. The apprentice ship of Law students, B Ed students etc, is dispensed with which has not benefitted the learner much.

UGC in its recent report emphasized stating about the required reforms, current examination system, tests memory learning skills. Demands from profession require students not just to possess information but an individual application to every situation either routine or complex. Reforms in examination for all forms of education i.e. formal face to face mode, open and distance learning mode etc., should thus aim at overall development of students in terms of their critical thinking, problem solving ability, right application of knowledge, and maintain ethics.

Memory learning may be required but not adequate to perform in the challenging environment that currently prevails. There is a need to assess application skills or skills of higher ability like analysis, creation, evaluation etc. Thus, choosing right assessment type/s appropriate for each course is the need of the hour.

From Interpretive Structural Model (ISM) for Higher Education Policy System<sup>14</sup> (www.dei.ac.in), we can pick up many relevant aims and objectives in building a well rounded person, excluding those of academic nature. Let us focus on some of these: General knowledge, Emotional Maturity, Ethical Values, Self Reliance, Inter Disciplinary Exposure, humility, Aptitude, Dignity of Labour, Independent Thinking, Reasoning Ability, Habit of Learning, Social Sensibilities, National Culture & Heritage etc,. Presently nowhere in our academic syllabus, any of the evaluation approaches address the learning for the above objectives. We need to identify some new additional learning assignments driving the learner in this direction. The related evaluation rubrics also need to be carefully defined to ensure the achievement of these objectives. In principle, a portfolio of learning assignments need to be offered, making the learner to mould to be a well rounded person incorporating large number of aims and objectives as explained and stated in ISM. Knowledge, skills, behavior and attitudes are the true objectives of higher education, and assessment methods require more attention at individual level. The activities need to include, discussion with peers, group activities, experts, inferring and documenting by connecting concept to context etc. The varied learning assessments being presented in this article are aimed at helping in this endeavor.

Higher education evaluation must focus on skills, outcomes and not just marks, says UGC<sup>15</sup>. UGC released a 'Quality Mandate' emphasizing on the need to change the current 'rigid' evaluation system that focuses on rote learning to a more outcome-based system<sup>14</sup>. The term-end examination is usually based on the question paper which tests only memory recall as a skill. Marks and grades are increasingly seen by students as commodities with a purchase price and spending power; in line with the OECD's findings<sup>5</sup>, university students know that an investment in fees will generate a life time return. Examinations, in its current form are moments of stress and anxiety for students, both pre-examination as well as post examination. Coupled to this are issues of malpractices which have impact on their credibility.

Reforms thus are much needed to ensure credibility and the outcome of the assessment system. There is a need to have more horizontal assessment modes rather than one single vertical mode that decides fate of students. Reforms in examination for all forms of education i.e. formal face to face mode, Open and distance learning mode etc., should thus aim at overall development of students in terms of their critical thinking, problem solving ability, right application of knowledge, and maintain ethics.

ERIN FOX advocates trying to use alternate assessments that encourage learner's best talents and abilities so that they can showcase other strengths and intelligences<sup>3</sup>. It is also true that, any practice that allows students to experience success encourages learning, and teacher shall be not just student centric but student specific.

Dale Carnegie suggested that, "When I go for fishing, I don't bait the hook with strawberries and cream. Rather, I dangle a worm or a grasshopper in front of the fish and say: 'Wouldn't you like to have that?'

#### 4. Large Scale Learning Assessments (LSLA)

**UNESCO has narrated about** Large-scale learning assessments (LSLAs)<sup>1,2,7</sup> which have been gaining prominence in the last decades. They are a form of national or cross-national standardized testing that provide a snapshot of learning achievement for a group of learners in a given year and in a limited number of learning domains. Going beyond measuring reading and mathematics, they now increasingly target a greater number of domains, including digital skills, computer and information literacy, socio-emotional

skills, or the understanding of concepts and issues related to civics and citizenship

The individual SME can think more detailed, individual student specific activities, which may take optimum time from students during the learning time. Some of these can be even crossing functional (covering more than one subject- for example all documentation has inherent written communication skills, plagiarism, covered). These activities help teachers to individually understand each student and guide for betterment. More so, they cover some of the aims and objectives of ISM. Each of the activity need to end up creating a hand written document, or a podcast, or a video as a proof of the artifact.

Collaboration between academic and industry will have a new dimension, without too much time being spent by industry and more benefits sought by students, by permitting them to visit their places, interact with experts, learn about the business processes, look at some open documents, dashboards etc.

Some set of assignments are identified here to add to the present set, to make it a large scale learning assessment list. (not in any sequence- not exhaustive)

- Visit to bank (understand service criteria, customer experience, quality)
- Retail store (Inventory, product merchandise, pricing and discounts, festive offers, loyalty recognition methods, billing, dressing rooms, place,)
- R and D organization (Innovation, creativity, Patents, technology trends, competence)
- Museum (Connect to history, social learning)
- Zoo (dignity of labor, animal care)
- Interview poets (Literature, creativity, language, process of thinking)
- Visit manufacturing centers (Stocks, inventory of finished goods/raw material, supply chain, quality control, quality assurance, Occupational health hazards)
- Conduct small interviews of many industry, corporate experts focusing on specific points helping in learning (can use social media)
- Magazine, newspaper contributions
- Writing papers on new ideas not necessarily research
- Cultural performances
- Internal seminars of shorter duration
- Physical model making
- Blog creation
- Alumni interactions and assignments (building relations for achieving a goal)

- Socio cultural activities ( Swatch Bharat, work at agri lands, donation collection, bringing awareness, teaching in schools)
- Promoting awareness on various contemporary matters to citizens
- Help in Adult education
- Question banks creation (lower classes as well inputs to current leanning)
- Using hobbies for productivity(stitching, drawing, painting, origami etc)
- Analyzing Annual reports of good companies
- Reading current news to elicit useful information to share peers (Mint, Business express etc)
- Reading articles from Research journals to share gist to peers
- Visit workshops, service centers, captive maintenance centers (firsthand knowledge of machinery DIY)
- Conduct class events of various nature
- Writing poetry, prose
- Designing brochures
- Decoding requirements from present operations of a product, software—like list all requirements of a mobile
- Helping crowd sourcing for ideas, funds
- Collect nature of job, responsibilities, business, revenues etc of own family and relatives family members
- Encourage solving cross words in any language, Sudoku etc
- Work in agri fields
- Build social awareness
- Educate modern technology gadgets usage to needed people
- Content sharing / explaining to uneducated
- Build Common libraries for use by your neighboring people
- Team works at social events
- Dirty the hand to learn
- Reading and summarizing good autobiographies of industrialists, engineers, management gurus, CEOs
- Reading and summarizing about National and International leaders
- Getting to know of successful interviews; summarizing, lectures of professionals at helm of affairs at rural, district, national and international arena (external affairs, PM, defense, Finance)
- Understanding economic surveys
- Impact of international events on Indian growth (Business environment)
- Learn to know of true history, glory, freedom fighters of our country
- Small scientific projects
- Study about organizations like ISRO, TIFR, ICAR, ICMR, CCMB, ICT etc
- Visiting historical places

- Tourism with purpose and achievements
- Look for various job opportunities and skills required
- Solving aptitude tests
- Understand the formation, functions, current scenario of sales, revenue etc of Indian industries as well International industries
- Understand the formation, functions, services, modus operandi of NGOs (globally like Bill gates, Warren buffet etc)
- Visits to hospitals for understanding patient care management
- Understand patient experience management
- Learning about local disasters and prepared plans submission ideas, even learning from previous events
- Activities helping woman empowerment
- Selfhelp groups
- Self employment ideas
- Small entrepreneurship ventures
- Adding additional technical skills in addition to domain skills
- Training leading to business skills

#### 5. Conclusion

Time has come to think differently in understanding the level of learning from each individual keeping in view of Millenials, Z groups and 21<sup>st</sup> Century learners.

- 1. Consider any value adding learning assessment to be integrated to curriculum and evaluation.
- 2. One of the recommended modes is **On-Demand Examination** especially for those enrolled under open and distance education mode.
- 3. Empower learners to chart their own education pathways for life long, self-driven learning (Different pathways leading to different academic certifications)
- 4. Consider stackable or micro credentials; can be either stand-alone or stackable towards a degree.
- 5. Increase student engagement and student career progression by extensive use of Alumni Network
- 6. Make research journals, and good library books accessible online to students free and 24X7
- 7. Increased Teacher connect with individual students
- 8. More worked out questions, connecting concepts to the context of the framed question, in a given subject with detailed answer steps made available to learners

- 9. Extensive use of technology (zoom, white boards, Kahoot etc.) both to learn and share across
- 10. Develop "high engagement/high activity" classrooms staffed by a variety of internal and external experts with continuous emphasis on multimodality active learning by individuals and learning teams.
- 11. Increase individual student sharing / participation time in class by design
- 12. Provide regular reports with adequate feedback on actual student learning levels in all key outcome areas
- 13. Empower students for learning than marks and ranks
- 14. Leverage traditional and unconventional partnerships to bolster learning
- 15. Aim at physically challenged learners in the process

#### 6. References

- 1. The promise of large-scale learning assessments, Education 2030, UNESCO 2019
- Large-scale Learning Assessments in Asia-Pacific: A Mapping of Country Policies and Practices Network on Education Quality Monitoring in the Asia-Pacific (NEQMAP), Education 2030, UNESCO[2]
- MAXIMIZING STUDENT POTENTIAL© 2018 Bechler Enterprises, LLC. Jamy Bechler. Edited by Tristen Gonzalez & Megan Welch.
- 4. https://www.ugc.ac.in/e-book/EVALUATION%20ENGLISH.pdf EVALUATION REFORMS IN HIGHER EDUCATIONAL INSTITUTIONS UGC 2019
- LEARNING OUTCOMES AHELO (Assessment of Higher Education Learning Outcomes)
   FEASIBILITY STUDY REPORT, VOLUME 1, DESIGN AND IMPLEMENTATION, OECD 2012
- 6. https://www.google.com/search?q=icwa++pas+percentage+india+10+years&ei=qO8vY5bWAv\_u4-EPiKm8iAI&ved=0ahUKEwiWyveUo6\_6AhV\_9zgGHYgUDyEQ4dUDCA4&uact=5&oq=icwa++pas+percentage+india+10+years&gs\_lcp=Cgdnd3Mtd2l6EAMyBQgAEKIEMgUIABCiBDoKCAAQRxDWBBCwAzoHCAAQHhCiBEoECEEYAEoECEYYAFDGFFjLPWCCRmgFcAF4AIABzwGIAesHkgEFMC41LjGYAQCgAQHIAQjAAQE&sclient=gws-wiz
- https://unesdoc.unesco.org/ark:/48223/pf0000375107, file:///C:/Users/Admin/Downloads/375107eng.pdf(unesco file)
- 8. https://www.caclubindia.com/forum/ca-final-results-10-years-analysis-208739.asp
- 9. https://finance.careers360.com/articles/ca-final-pass-percentage
- 10. https://www.wearecma.in/cma-final-pass-percentage
- 11. https://ipassfinanceexams.com/cfa-exam-pass-rates/cfa
- 12. https://caknowledge.com/cs-pass-percentage-cs-executive-professional/
- 13. https://www.ugc.ac.in/ebook.aspx
- 14. https://www.ugc.ac.in/e-book/Quality%20Mandate%20E-BOOK/mobile/index.htmlquality mandate
- https://theprint.in/india/education/higher-education-evaluation-must-focus-on-skills-outcomes-and-not-just-marks-says-uge/608743/
- 16. https://www.verywellmind.com/learning-study-guide-2795698#:~:text=Learning%20can%20be%20defined%20in,to%20explain%20the%20learning%20 process.

# उत्सव जैसा प्राणवान मन

डॉ. प्रेम प्यारी गुप्ता, विजिटिंग फैकल्टी, डी.ई.आई. इन्फॉर्मेशन सेंटर, रुड़की

हरियाली सा हरा भरा हो, सावन सा जीवत बने मन रिमझिम मेघों सा कल्याणी, जल – प्रवाह सा सार्थक जीवन

सावन की सौगात अनूठी, सबकी झोली भरने आया उमंग भरा उत्सव बन आया, जड़ चेतन सबमें स्पंदन कभी धूप है, कभी छांव है कुदरत सौ सौ रंग बिखेरे प्रकृति आज सहचरी सुहानी, खोल दिए सारे अवगुंठन उत्सव जैसा प्राणवान मन

झूम रही है तरूमय धरती, डाल — डाल पर पड़ गये झूले बादल अनुपम तिलिस्म रच रहे, चपल चपल चपला नम गर्जन खेतों में हलचल है भारी, कृषक बो रहा सपने अनिगन धरती पर श्रम सार्थक होगा, फसलों से बरसेगा कंचन सहनशील हो धरती सा मन

निदयां लहरातीं, बलखातीं, झर झर झरते हैं निर्झर पवन झकोरे मद, सुगंधित, दूर हुई सब जलन तपन नहरें झीलें, ताल तलैया, भीग रही बच्चों की टोली जल ही जल सर्वत्र जलिंध है, टूट गये सारे तट बंधन जल समान पावन हो जीवन घर घर मंगल कजरी गूजे, दूर बड़ी मैके की देहरी छूट गया बाबुल का अंगना, छूट गया पीछे बचपन जीवन के दुख दर्द भुलाकर, सुधियों से जुड़ जाता नाता कभी विरह है कभी बिछुड़ना कभी जगाता आस मिलन बिछुड़े मीत मिलाता सावन

जल पृथ्वी की प्राण शक्ति है, आता रहे निरंतर सावन इसकी ऊर्जा से संचालित, गतिमान है मानव जीवन अविरल प्रवाह ही जीवन है, रुकना है मृतप्राय सरीखा थक कर जो रुक जाये वह हारे, बहती रक्तधार संजीवन ऊर्जित तन मन करता सृजन

सब ऋतुएं सुंदर सुखियारी, पर सुंदरतम है यह सावन रिमझिम के स्वर यह कहते हैं कभी न हो कुदरत से अनबन रौद्र रूप में बन जाती है, प्रकृति एक अनबूझ पहेली बना रहे साहचर्य संतुलन, बनी रहे यह दिल की धड़कन कुदरत सा हो दानशील मन

प्रकृति नटी है अजब निराली, मानव की हो सखी सहेली सदा लुटाये अक्षय निधि को, हो न कभी सृष्टि की दुश्मन मानव का मन स्वच्छ विमल हो, धरा बने पावन मन पावन इन्द्रधनुष सा सतरंग जीवन, सतयुग सा सात्विक नवजीवन सावन सा जीवंत बने मन

# Need for Holistic Development at Primary Level Education - A Parent's Perspective

Priya Singh, Centre-in-Charge, DEI Information Center Chennai

In the words of Param Guru Huzur Sahabji Maharaj, the 5<sup>th</sup> Revered Leader of Ra-Dha-Sva-Aah-Mi Faith, "Education, more education, education made perfect, is the only panacea for our country's ills and evils." This divine observation is extremely relevant in the present times.

I say this because the education system in India today has become very narrow and ferociously competitive, focusing only on academics and grades. All the children are running a kind of a rat race with the sole objective of outshining each other. This kind of education system has adversely impacted the society, whose foundation is becoming hollow, resulting in more ills and evils creeping into it. As a result, the nation's progress is also being affected.

From my experience as a parent, I feel that the primary education system in India today needs to be overhauled on priority, from being only academic – centered to focusing on holistic development of the children. Primary education lays the foundation stone of the overall personality of an individual, as it is this period from kindergarten to fifth grade which are the most formative years in a child's life. During this period the child imbibes everything from his surroundings and therefore it is very important that the seeds of the right values, ethics and social skills are sown in the children at this time.

What I have observed when my children were in the primary school was that the teachers focused only on academics. There were too many written and oral exams based on which my children were evaluated. The teachers' focus was to complete their syllabus focusing mainly on text books. Values and ethics were taught but only through stories in books. There were no practical sessions or workshops where the children were made to interact through live examples to teach them how to inculcate good values, ethics and social skills with their classmates. As a result, the children could not develop holistically in their primary school.

My children were very fortunate and blessed because this gap got bridged through the activities that they participated in within our Satsang community. It enabled them to

imbibe the values, ethics, culture, selfless service and social skills which are needed for the overall development of their personality.

In olden times, the *Gurukul* system was the main medium of education for the children. This is the best example of holistic education as the students were provided knowledge of not only reading and writing but also the scriptures, values, culture, service to humanity and interpersonal skills. Further they were imparted practical training in extracurricular areas such as self-defense, music, dance, singing, handicraft, to name a few. When these students came out of the Gurukul they had developed into holistic human beings. They went on to become not only good human beings but also great administrators, who contributed to the development of the society and nation at large.

If we compare this to the schools of today, we find that the schools have made education a business proposition rather than service to the society. They do provide extracurricular activities but the more facilities a school provides, the higher their fees become. So only the upper strata of society can afford such schools. The average schools focus mainly on academics even at the primary level thereby most of the children are not able to develop holistically.

Therefore, ideally the education system at primary level has to be a value-based system. In this system, the teachers and parents need to interact closely to ensure that the foundation of the desired qualities, values, ethics, service, social skills are laid in the children in their formative years. The children need to be taught practically about other aspects such as care for the environment, health, hygiene, respect for elders and above all they need to be groomed to handle challenges and failures. The value-based system of education will help in developing the mental, physical and spiritual faculties of the children and they will grow into complete humans.

Children at the primary level should be encouraged to be creative and innovative. Usually, the teachers teach the students from the books and expect them to reproduce the same. This restricts the creativity of the child. At the primary level, Children are very inquisitive. This inquisitiveness allows the children to use their creativity and think out of the box. The primary education should be designed in such a manner that the children can come up with solutions to problems rather than always following the solutions given in the book. Very often, the children use their creativity and come up with very innovative solutions which even the elders may not have thought of. This will make the children more confident, independent and innovative. It will enhance their creative ability.

It is through a value-based education system that real education can be provided to the children at primary level.

In the words of Sir Sahabji Maharaj, "With real education, we can easily raise the general level of intelligence of the country's teeming millions, create in its future generations, the habit of clear and deep thinking and of appreciating new values and turn the acquisitive impulse of its people from its present direction to the direction of Truth, It is only in such circumstances that our country men would understand their surroundings better and make up their minds to come in line with other advanced countries of the worlds in matters social, industrial and economic, put an end to senseless quarrels over trifles and take to the pursuit of the ideals that will bring them happiness."

When the foundation of our primary education system is strong, it will provide holistic individuals who will contribute to making our society and our nation stronger and

- \* Human development, as an approach, is concerned with what I take to be the basic development idea: namely, advancing the richness of human life, rather than the richness of the economy in which human beings live, which is only a part of it.
- \* Economics, as it has emerged, can be made more productive by paying greater and more explicit attention to the ethical considerations that shape human behaviour and judgment.
- \* Poverty is not just a lack of money; it is not having the capability to realize one's full potential as a human being.

- Amartya Sen Nobel Laureate

### **Indian Art**

Jyothi Varanasi, Mentor Textile Designing and Printing, DEI Information Centre, Visakhapatnam (Dayalnagar)

Art has a long and tedious history in India. It has spanned across generations and entire civilizations have undergone various forms and adapting to cultures. It has survived through ages of change with artists introducing newer thoughts and techniques.

Various art movements arise in the history of art in India. A movement is a style in art or design that creates a specific philosophy or idea and is followed over a period by some artists.

The Early Indian art, Medieval Art, Mughal and Colonial Era Art and Contemporary Art are some important Art Movements that took place in India.



The Early Indian Art existed from around 8000 B.C, pre-historical period till the Golden Era of Guptas. Early Indian art is archive of paintings, carvings, engravings, and sculptures. Of all the above, Indian painting has a very long tradition and history in India. Unfortunately, because of the climatic conditions, very few have survived, such are found in Bhimbetka

caves of Madhya Pradesh, India (45 kms from Bhopal) it traces human life in India and evidence of Stone Age. Some of these Rock shelters feature pre-historic cave paintings and the frescoes (wall paintings) of the Ajanta Caves. These rock caves were the canvas for many oldest paintings.



A new style emerged in Mughal Era as a fusion of the Persian miniature with old Indian traditions. In the 18<sup>th</sup> century, many European artists migrated to India. Their style blended with Rajput and Mughal paintings. This western style had a large influence on Indian artists, as a result, colonialism took place, they started self-improvement. This led to Modern Indian Art. Raja Ravi Varma (1848-1906) was the pioneer of Modern Indian Art, he is also called "Father of Indian Painting". Leading artist of that time Abanindranath Tagore (1871-1951) (nephew of

the Artist and poet Rabindranath Tagore) used western influenced Realism and Asian elements which led to Early Modernism. Later this contextual Modernism was practised by the Santi Niketan Artists.

Artists like Gamini Roy (1887-1972) a famous pupil of Abanindranath Tagore drew inspiration from Folk art. By the time of Independence to India in 1947 several Art schools and Galleries established to showcase these arts. Later, Progressive Artists group was established. The great modern artists like M.F. Hussin, S.H. Raza were among the founder members. All most of all these great artists were associated and enriched the art culture of India.

Indian Art got a boost since the early 1990s. Artists from various styles of works, contemporary art forms like Warli, Goud, Patachitra, Madhubani, Kalamkari, Mandana based on myths, the traditional and the religious works in search of Indian identity. Nandalal Bose, Mukul Dev, Gaganedranath Togore played major role.



During the early 20<sup>th</sup> century, the contemporary Artist's approach was not to follow the traditional art forms and were influenced by impressionism and minimalistic approach. They are influenced by various art movements through the ages -Art Nauveau (New Art), Expressionism, Cubism, Art Deco, Pop art, Op art etc., (1880 to 1st world war) taking inspiration from unruly aspects of the natural world, asymmetrical shapes, use of arches and curved forms. Artists get inspiration from organic and geometrical forms).

By the end of 19th century to early 20th century one of the major objectives of Art



Nouveau was to break down the traditional distinction between fine arts. Artists thought that art was something that flowed from soul, interwoven with consciousness and decorated life with its beauty and positivity. Expressionism is an art style that was practiced in the beginning of 20<sup>th</sup> century. In this, the moods of an artist were to distract the reality for an emotional effect to

express the ideas through strong colours. These art forms evoked moods or ideas of

expressionists. The term often refers to certain apprehensions of a person. It made the viewers visualize their inner emotions. Cubism is also a modern art movement. It began in Europe during early 20<sup>th</sup> century. Pioneered by Art Maestro Pablo Piccaso. In this style objects are analysed, broken-up and reassembled in an abstract form in various views. Gaganendranath Tagore was the earliest modern artist and was considered as the one who introduced Cubism in India. He explored one art style after another.





Contemporary Art by Late PB.V.S.Narayan. (My Husband)

The contemporary art refers to the art of today. It generally defines art produced after the modern art movement to the period. Contemporary paintings can be difficult to define because each form has its unique class and ideology. Contemporary art is just another evolution, which was highly influenced by modernism, they are away from traditional and academic style of making and perceiving art works. Art today has become so diverse in terms of mediums, techniques, and styles as well as artistic themes. It is not possible to give a single definition. Now the definition of art has no boundary, art forms became more diverse and are away from ones culture. New art forms have appeared with new techniques such as street art, conceptual art, video art, computer art, Bio Art and Digital art. Finally, Art has lost its importance and the medium (painting, sculpture and drawing etc.,) has lost the aesthetic sense.

"A beautiful body perishes, but a work of art dies not." Leonardo da Vinci.

# Importance of Sanskrit

Y V Mahalakshmi, Mentor, DEI Information Center, Secunderabad

# विद्या प्रशस्यते लोकैः विद्या सर्वत्र गौरवा। विद्यया लभते सर्वं विद्वान सर्वत्र पूज्यते।

Knowledge is extolled by everyone, knowledge is considered great everywhere, and one can attain everything with the help of knowledge. A knowledgeable person is respected everywhere.

#### I. Introduction

Most Revered Gracious Huzur Prof. Prem Saran Satsangi Sahab has graciously introduced Sanskrit language into Satsang community for the benefit of all Satsangis. We have been blessed to listen sabdas in Sanskrit(Hey Dayal, Tamannah, and other Holy Sabdas). Though, I had Sanskrit in my school days, the interest got rekindled with HIS gracious guidance on Sanskrit and thought of sharing the importance of Sanskrit to my Satsang brotherhood.

Sanskrit has been the source of later languages and literature in India. Pali and Prakrit were developed from Sanskrit. Pali was taken as means for exposition of Buddhistic ideas and Prakrit was used for the spread of Jain doctrines. A vast amount of Buddhistic and Jain literature was also written in Sanskrit simultaneously.

### II. The Language

The first point which gives Sanskrit an edge over many other languages is its script, which usually is written in Devanagari. The scientists of National Brain Research Centre (NBRC) <sup>4</sup> have discovered that reading Devanagari involves more areas of human brain than Roman Scripts, like English. In Devanagari, consonants are written in a linear left-to-right order and vowel signs are positioned above, below or on either side of the consonants. As a result, the vowel precedes the consonant in writing certain words but follows it in speech making it a unique script. "Our results suggest bilateral activation-participation from both left and right hemispheres of the brain-for reading phrases in Devanagari".

Sanskrit is the language of God and Goddesses. It is also the language of

transcendental consciousness. There has never been any kind, class or nature of change in the science of Sanskrit grammar as seen in other languages of the world as they passed through one stage to another. People of every region in the country can easily relate with Sanskrit and that is the best tool to unite the country. For expanding the vocabulary to cope with the development of civilization, all languages of India and some of the neighboring languages like Singhalese, Burmese and Malaysian depend heavily on Sanskrit loan words.

Swami Vivekananda said: "The only solution to be reached was the findings of a great sacred language of which all others would be considered as manifestations and that was found in Sanskrit."

Dr. S. Radhakrishnan had said that: "Sanskrit has moulded the minds of our people to the extent to which they themselves are not conscious. Sanskrit literature is national in one sense, but its purpose has been universal. That was why it commanded the attention of people who were not followers of a particular culture."

### III. Literature<sup>2</sup>

The Yathartha Prakash, other Holy books and Discourses on Ra-Dha-Sva-Aah-Mi faith, and present day research works on consciousness at Dayalbagh by Most Revered Gracious Huzur Prof. Prem Saran Satsangi Sahab, elevates individual's practicing knowledge on consciousness in Radhasoami faith, Dayalbagh.

Sanskrit literature is a deep ocean with many pearls of wisdom. Some pearls are, *Vedas*, *Sastrams*, and *Kavyams* with the language of gods. Sanskrit literature is as vast as the human life. There are four aims of human life which are called Purusharthas. They are Dharma, Artha, Kama and Moksha. Dharma stands for the duties and responsibilities of man. Artha communicates the monetary necessities, Karma stands for the human desires of all types and Moksha is freedom from birth and re-birth and worldly involvement. The religious literature surrounds these four aims of human life.

Valmiki wrote the Ramayana. Mahabharata which is known as encyclopedia of knowledge was written by Krishanadwaipayana Vyasa. Kālidāsa Abhijñānaśākuntala; Vikramorvaśīya, and Raghuvaṃśa. Bhāravi - Kirātārjunīya, Bhavabhūti - Mahāvīracarita, Mālatīmādhava, Uttararāmacarita. The Pañcatantra ("Treatise in Five Chapters") and Hitopadeśa ("Beneficial Instruction") are major

representatives of didactic literature. Sanskrit was also used as the medium for composing treatises of various philosophical schools, as well as works on logic, astronomy, and mathematics<sup>1</sup>.

The Sanskrit Scientific Literature covers Lexicography, Metrics, Grammar, Law, Science of Politics, Love, Philosophy and Religion, Medicine, Astronomy, Astrology and mathematics etc.

The most important work written on History in Sanskrit literature is the *Rajatarangini* of Kalhana. The best four books with historical value are: Harshacharitam, Navsahasankcharitam, Vikramankadevacharitam and Rajtarangini.

Kautilya's *Arthashastra* in 15 *Adkikaranas* and 180 *Prakaranas*, represents an important tradition in Indian intellectual history. Kautilya refers to the Vedas, Manu, various systems of Philosophy and to tribal and republican politics. He lays special emphasis on moral goals. The study of Kautilya can add a lot to cross cultural Intellectual history and early political realism in diplomacy.

The law in Sanskrit is known by the name of *Dharmashastra* i.e. the science of ordinance but the scope of Dharmashastra is more extensive than what is denoted by 'law'. Dharma can be defined as ordinance, duty, right, justice, morality, virtue, religion, good actions etc. These 'Dharmashastras' contain rules of conduct and rituals, duties of people at various stages of life. They discuss purification rites, forms of hospitality, daily oblations and judicial matters. Although there is *mention of eighteen smrities*, *Manusmriti* compiled by Manu is the most authentic and popular. The other literature covers: Children's Fables, Drams, Poetry, Brahmana Granthas,

Aranyakas, Vedangas and Sutra Literature, Upanishads and Epics Getting to know of some of these literature<sup>5</sup> which showcase India's rich culture, helps one in addressing the aims and objectives, from the Interpretive Structural Model (ISM) for Higher Education Policy System (www.dei.ac.in) like: General knowledge, Emotional Maturity, Ethical Values, Reasoning Ability, Habit of Learning, Social Sensibilities, National Culture & Heritage etc,.

# IV. ADOPTION OF SANSKRIT BY NASA / AIMS TO CHANGE THE LANGUAGE GAP

Sanskrit has always been an important language in intellectual communities. Despite its ancient origin, the language has some amazing characteristics that are considered helpful in different fields. It is also used for therapy sessions in psychology and for spiritual remissions. Its recent involvement with artificial intelligence is an honor

proving its power for being a valuable course of literature. The grammar also makes Sanskrit suitable for machine learning and even artificial intelligence. NASA's scientist Rick Briggs, submitted his research entitled Vedic Science- 'Knowledge Representation in Sanskrit and Artificial Intelligence' in 1985. The article argued about Natural languages being the best option to be converted into the computing program for robotic control and Artificial Intelligence technology. Currently, NASA is also working on Artificial Intelligence for space communications which are clear proof that the topic of "Artificial intelligence Development" was never closed in NASA<sup>3</sup>.

## V. Summary

If someone does not know Sanskrit, he cannot get the clear perspective of *Vedas*, *Upanishads*, *Ramayana*, *Mahabharata*, *Bhagavad Gita*, *Arthashashtra* and many other books, which are still regarded as the finest pieces by the world. Even to be a master of subjects like Ayurvedic Medicine, Yoga, Indian philosophy, Vedic Mathematics or Astrology, one need to know Sanskrit to some extent. Most Revered Gracious Huzur Sahabji Maharaj had translated Bhagavad-Gita into Hindi, for the benefit of Satsangis.

Sanskrit is more a language of sound and pronunciation. One needs to do "Uchharana – speaking" correctly and perfectly. Many voluntary organizations, Central Sanskrit University, IITs have started Sanskrit language teaching and pronunciation courses, and it is essential that each of us take advantage to get confident in Sanskrit speaking, understanding and gain knowledge in Sanskrit.

Knowledge is extolled by everyone, knowledge is considered great everywhere, and one can attain everything with the help of knowledge. A knowledgeable person is respected everywhere.

# विद्या प्रशस्यते लोकैः विद्या सर्वत्र गौरवा। विद्यया लभते सर्वं विद्वान सर्वत्र पूज्यते।

#### VI. References

- 1. https://www.britannica.com/topic/Sanskrit-language
- 2. http://www.sanskrit.nic.in/about sanskrit.php
- 3. https://www.analyticsinsight.net/adoption-of-sanskrit-by-nasa-aims-to-change-the-language-gap/
- 4. https://medium.com/@maheedhar1998/greatness-and-importance-of-sanskrit-19611fe0284f
- 5. http://timesofindia.indiatimes.com/articleshow/93419207.cms?utm\_source=content ofinterest&utm\_medium=text&utm\_campaign=cppst

# **Mindfulness**

Priya Singh, Centre-in-Charge, DEI Information Centre, Chennai

To be aware of everything around you, To be sensitive towards the old and new, Living in the present moment with fullness, This is what I call the state of Mindfulness.

Being conscious of what you drink and eat,
Being mindful of the people you meet,
Being cautious about the words you speak,
All this is a part of mindfulness,
It is actually a state of consciousness.

Showing care and concern for others, Loving fellow humans as your brothers, Lending a helping hand, without caste or creed This is mindfulness towards the human breed.

The world today is so selfish and fake,
The Nature, air, oceans, all are at stake,
To fulfil their greed, humans have become mindless,
They've risked their own future, by being so careless.

If our Earth we do want to save,
We do need to take steps – bold and brave.
We need to kindle in us, Mindfulness,
And for humanity- love, compassion and kindness.

Only then will our planet be a better place, For future generations, a healthier space, So let's be mindful towards all in this universe, And make life here a blessing, not a curse.

# The Future Face of Social Media Through Metaverse

Ms Madhuri Yeditha, Facilitator, DEI ICT Centre, Bangalore and Y V Subrahmanyam, Center-in-Charge, DEI Information Center, Secunderabad

#### I. Introduction

<u>Face book has changed its company name to "Meta,"</u> and 'Metaverse' has made ripples to see how it changes the face of Face book and nature of the future of social media applications. Gamers had been involved with the concept of Metaverse for some time in their gaming career.<sup>2</sup>

"The metaverse is a set of virtual spaces where you can create and explore with other people who aren't in the same physical space as you. You'll be able to hang out with friends, work, play, learn, shop, create, and more." <sup>1</sup>

The metaverse would be made possible through the integration of augmented reality (AR), virtual reality (VR), cryptocurrencies, internet of things (IOT), 5G internet, 3D modelling, artificial intelligence (AI), cybersecurity and non-fungible tokens (NFTs).<sup>5</sup>

The <u>metaverse</u> can be defined as a simulated digital environment that uses augmented reality (AR), virtual reality (VR), and blockchain, along with concepts from social media, to create spaces for rich user interaction mimicking the real world. <sup>1</sup>

AR: Augmented reality uses the existing real-world environment and puts virtual information—or even a virtual world—on top of it to enhance the experience.

VR: Virtual reality is a simulated 3D environment that enables users to explore and interact with a virtual surrounding in a way that approximates reality, as it is perceived through the users' senses. There are 3 primary categories of virtual reality simulations used today: non-immersive, semi-immersive, and fully-immersive simulations.

Blcokchain: Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. An asset can be tangible (a house, car, cash, and land) or intangible (intellectual property, patents, copyrights, branding).

Digital Twin: A digital twin is a digital representation of a real-world entity or system. The implementation of a digital twin is an encapsulated software object or model that mirrors a unique physical object, process, organization, person or other abstraction

NFT: A non-fungible token (NFT) is a unique digital identifier that cannot be copied, substituted, or subdivided, that is recorded in a blockchain, and that is used to certify authenticity and ownership.

Metaverse takes the complete 2D internet experience and upgrades it to full three-dimensional space. This ensures that with the right equipment, VR headsets, users will have a chance to instantly teleport to their <u>favorite store</u> and potentially try clothes from the comfort of their home before deciding on ordering them. If you'd like to see what it's like inside a metaverse, all you need is a VR headset. One can research on one of the most popular and working metaverse projects like *CEEK*, *OVR*, or Decentraland, and hop inside to beta test for potential future life. In future, people may not need to commute to work every day, as they can spawn in their company's conference room in a blink of an eye.

When stepping foot into the Metaverse, users will be able to create a digital version of themselves that'll serve as their digital twin. Things are not clear today, whether there will only be one metaverse in the future or a bunch of them. Companies are currently competing against each other in terms of quality to create the best metaverse product to take the largest market share. Right now, multiple metaverse projects are auctioning land and buildings to the highest bidders. One example is *Sandbox's*, a blockchain-based 3D openworld game. The likes of ATARI, Snoop Dogg, and Steve Aoki already have put their places on the map.

#### II. How metaverse helps?

The current concept of the metaverse focuses on allowing people to do anything they can do in real life. Going to a work meeting, hanging out with friends, shopping, concerts, performances, and even sightseeing. This, however, depends entirely on the users and how they choose to adopt the metaverse into their lives. There may be a chance that, metaverse which aims to digitize user lives may fail and only thrive in the gaming world. The answer surfaces better in future, when more metaverse projects finalize their development.

The metaverse will allow us to create many new realities from sheer imagination. It can merge the physical world with the ever-expanding, ever-growing virtual world, completely changing the way we interact with and use information, how we solve problems, and even the way we create. It may have an impact on global politics as in this virtual world, geographical identity need not have any meaning. This shift to a more immersive virtual world got

accelerated because of the pandemic.<sup>3</sup>

Another major aspect is the merging of physical and virtual realities into completely new will move us in to an enormously digitized economy. Digital currencies are likely to dominate, and political borders may become increasingly difficult to enforce implementable laws, in a virtual world. Current tax codes and regulations aren't prepared to handle a virtual designer selling virtual clothes to avatars that can then resell them to others in this metaverse. Day is not far off, where the virtual architects to design a virtual home that can then be moved to anywhere in the metaverse <sup>3</sup>

# III. AIRTEL application of Metaverse<sup>4</sup>

AIRTEL unveiled India's first multiplex on the Partynite Metaverse platform. The Xstream multiplex is an extension of Airtel's Xstream Premium offering, which recently achieved a 2-million subscriber milestone within 100 days of its launch. Airtel's Xstream multiplex will be a 20-screen platform with access to content portfolios from leading OTT partners available on the application. The multiplex will enable sampling of top original shows and movies with content pieces such as the first episode of an OTT original or initial minutes of a movie in regional languages, besides English and Hindi. Viewers can get complete access upon subscription of a plan. Xstream multiplex provides a larger-thanlife experience, which brings together Web 3.0 apps and immersive storytelling, and an assortment of content from our partners. opportunities include movies, music, live events and premium sports streaming. Apart from the robust scope, it will also allow social engagement, open up newer methods of content delivery and, of course, provide an immersive astonishing experiences at the core of it.

### IV. ADVANATGES1

- In addition to two-dimensional digital spaces, users will now have an immersive reality that they can occasionally inhabit.
- Content creators and designers (especially 3D modelling and VR world-building experts) can expect new opportunities on the road ahead.
- The metaverse opens up a new economy where wealth can be created, traded, and enhanced using a currency distinct from but related to the real world.
- The metaverse necessitates the evolution of new technologies, for example, you need a "Digital me" or the digital twin of a person to simulate real-world presence for its execution.

- The metaverse is expected to create a lot of jobs in the allied industry including in AI, engineering, software development, AR/VR handset production, chip making, 5G and many others. This one concept alone can generate millions of new employment opportunities.
- In addition, the metaverse seems like a place to implement more of one's creativity.
- It envisions giving people their own virtual spaces where they can create virtual homes, travel, do jobs and meet new people. It adds a new dimension to creativity because the metaverse is expected to possess nearly unlimited resources. Therefore, the possibilities are endless for users.
- Apart from this, it will deliver a renewed push to emerging technologies such
  as cryptocurrencies, AR/VR and NFTs. These three components will play a
  vital role in the metaverse. Cryptocurrency is expected to be the prime medium
  of exchange in the metaverse.
- The main aim of the metaverse from a company's point of view seems to be advertisements. Ads are already one of the most criticised features of the social media and their advent to the metaverse is inevitable.
- Users should brace themselves for a plethora of promotional material in the digital world because ads are here to stay.
- Finally, with a digital tool, the risk of cybersecurity is perpetually looming and companies would have to deal with hacking and other concerns periodically

#### V. The future

The rapid shift towards metaverse has also motivated a lot of countries to introduce frameworks of digital assets and intensify the cybersecurity ecosystem. In addition, a lot of tech giants have begun working to establish their own metaverse which would be different from Meta's virtual world. Different firms are offering beta version of the service to their customers. The next 'one to two decades' will see competition for metaverses tightening with each company racing to introduce new features. While it seems like a futuristic concept and offers a lot of opportunities, it comes with its own set of challenges. Right now it is still in trial and error mode and its actual costs and benefits will emerge once this new technology attracts a considerable number of users. <sup>5</sup>

#### VI. References

- [1] Metaverse Meaning What is this New World Everyone's Talking About? https://www.xrtoday.com/mixed-reality/metaverse-meaning/
- [2] What is a Metaverse? Metaverse concept, explained <a href="https://www.msn.com/en-us/sports/esports/what-is-a-metaverse-metaverse-concept-explained/ar-AAStH6L">https://www.msn.com/en-us/sports/esports/what-is-a-metaverse-metaverse-concept-explained/ar-AAStH6L</a>
- [3] World Reimagined: The Metaverse, Explained, And How to Invest in It, <a href="https://www.nasdaq.com/articles/world-reimagined%3A-the-metaverse-explained-and-how-to-invest-in-it-2021-10-01">https://www.nasdaq.com/articles/world-reimagined%3A-the-metaverse-explained-and-how-to-invest-in-it-2021-10-01</a>
- [4] <a href="https://www.airtel.in/press-release/06-2022/airtel-launches-indias-first-multiplex-in-the-metaverse 2022">https://www.airtel.in/press-release/06-2022/airtel-launches-indias-first-multiplex-in-the-metaverse 2022</a>
- [5] <a href="https://www.brecorder.com/news/40194674/metaverse-a-new-world-of-opportunities-and-challenges">https://www.brecorder.com/news/40194674/metaverse-a-new-world-of-opportunities-and-challenges</a> 2022

"I have tried to read philosophers of all ages and have found many illuminating ideas but no steady progress toward deeper knowledge and understanding. Science, however, gives me the feeling of steady progress: I am convinced that theoretical physics is actual philosophy. It has revolutionized fundamental concepts, e.g., about space and time (relativity), about causality (quantum theory), and about substance and matter (atomistics), and it has taught us new methods of thinking (complementarity) which are applicable far beyond physics."

— Max Born Nobel Laureate

"Hence this life of yours which you are living is not merely a piece of the entire existence, but is in a certain sense the whole; only this whole is not so constituted that it can be surveyed in one single glance. This, as we know, is what the Brahmins express in that sacred, mystic formula which is yet really so simple and so clear: Tat tvam asi, this is you. Or, again, in such words as 'I am in the east and in the west, I am below and above, I am this whole world'.

Erwin Schrodinger Nobel Laureate

# **Srijanshala**

V. Radha, Facilitator, DEI Information Centre, Roorkee and V. Agam, Data Scientist and Alumnus of Dayalbagh Educational Institute

At DEI Information Centre Roorkee, a free weekly enrichment Funday (fun-sunday) camp called Srijanshala has been initiated in the mentorship of Mrs. V. Radha (Facilitator) and Mr. V. Agam, a Data Scientist and an alumnus of Dayalbagh Educational Institute. The activity organised during the summer vacations is part of the corporate social responsibility (CSR) initiatives by DEI Information Centre Roorkee. It serves the dual objectives of spreading practical and fun-activities based learning to primary school students, along with the publicity of the vocational certificate courses taught at the centre. Students from classes 1 to 5 enthusiastically participate and enjoy learning in a fun manner in the serene and natural environment of AHOBHAG, the unique Agro Homeopathy based Botanical and Herbal Garden established at DEI Information Centre Roorkee.

Here, we attempt to implement the best educational and teaching practices from various premier schools and micro schools around the world. Mentors and volunteers use Socratic dialogue, activity-based personalized learning and blended learning with emphasis on our glorious culture and traditions to cultivate the habit of innovative thinking, collaborative problem solving and self-learning by the students. This enrichment program is very broad-based in its scope and vision. Activities here





range from meditation and yoga, to playing educational games like Jenga and puzzles like Sudoku, and gaining hands-on experience in cutting-edge techniques in organic farming. Educational documentaries are also shown to students as part of blended learning paradigm to enrich their knowledge and understanding. Even advanced topics like colouring problem in graph theory, principle of siphon, optical instruments such as magnifying glass and foldscope, phenomena of surface tension etc are introduced to them in a conceptual manner with relevant experiments and activities. We try to identify and nurture the child's passions, as we believe all children are inherently inquisitive and have a strong desire to learn. Thus, it is our objective to facilitate learning on demand. Unlike the industrial education system where pressurizing students with tests and grades is the norm, we focus on competency-based learning and developing strategic thinking in the child. This is our humble effort to groom Generation Alpha into change agents to meet the challenges and opportunities offered by Industry 5.0 in the 21st century.

"In the history of science, ever since the famous trial of Galileo, it has repeatedly been claimed that scientific truth cannot be reconciled with the religious interpretation of the world. Although I an now convinced that scientific truth is unassailable in its own field, I have never found it possible to dismiss the content of religious thinking as simply part of an outmoded phase in the consciousness of mankind, a part we shall have to give up from now on, Thus in the course of my life I have repeatedly been compelled to ponder on the relationship of these two regions of though, for I have never been able to doubt the reality of that to which they point."

— Werner Heisenberg Nobel Laureate

# नारी सशक्तिकरण की मिसाल है बेटियां

डॉ प्रेम प्यारी गुप्ता, विजिटिंग फैकल्टी, डी.ई.आई. इन्फार्मेशन सेंटर, रुड़की

सदियों से दिलत और भ्रमित थी नारी, आज सबल और सजग है। जाग उठी है हमारी बेटियां, कश्मीर से कन्याकुमारी तक। जीवन एक गतिशील शक्ति है, सृष्टि कर्म प्रधान है, जानती हैं ये। नारी सशक्तिकरण की मिसाल बन गई हैं ये बेटियां।

फूल सी नाजुक है पर चट्टान सी सुदृढ़, कुंदन सी खरी। अंतरिक्ष में भी जाने का इतिहास रखती है ये बेटियां। खुद खुदा ने संवारा है शिद्दत और मेहनत से इन्हें। उसके तसव्वुर में हमेशा बस्ती है यह बेटियां।

सुशिक्षित, शारीरिक व्यायाम में प्रशिक्षित आत्मविश्वास से भरपूर है।
प्यार करती हैं अपने आप से, परिवार, समाज और राष्ट्र से।
किंवन से किंवन समय में भी नहीं हारती हैं हिम्मत।
हर क्षेत्र में कर्तव्य निभाती हैं हँस हँस के ये बेटियां।

दुनिया मुडी में करने को घर से निकलती है ये। देश विदेश में राष्ट्र का नाम रोशन करती हैं ये। घर लौटती हैं अनगिनत खुशियों का पैगाम लेकर। महकता है घर संसार शायद पेरिस का इत्र होती है ये बेटियां। सामाजिक षड्यंत्र, काले अंधविश्वास रास्ता रोकते हैं इनका। फिर भी निरंतर आगे बढ़ती हैं, संघर्ष करती हैं। जानती हैं कि लंबी नहीं होती आंधियों और जलजलों की उम्र। तूफानों का निडर होकर सामना करती है ये बेटियां।

समाज में अन्याय, अत्याचार, शोषण और पाखंड का तांडव है। दुष्टों का वर्चस्व है, बाहुबलियों की पतकाएं लहराती है। बदलना है यह सब बेटियों को जन्म तो लेने दो, दैत्यों का संहार करने वाली तलवार बन जाएंगी ये बेटियां।

Empowering Women is a prerequisite for creating a good nation; when women are empowered society with stability is assured. Empowerment of women is essential as their value systems lead to the development of a good family, good society and ultimately a good nation.

— Dr A.P.J. Abdul Kalam

"All matter originates and exists only by virtue of a force which brings the particle of an atom to vibration and holds this most minute solar system of the atom together. We must assume behind this force the existence of a conscious and intelligent mind. This mind is the matrix of all matter."

— Max Planck Nobel Laureate

God used beautiful mathematics in creating the world.

— Paul Dirac Nobel Laureate

# **Importance of Value-Based Quality Education**

A panacea to the psycho-social problems?

Sahej Grover Mentor, BBA, DEI ICT ODL Campus, Bangalore

## The world around us...A reality check

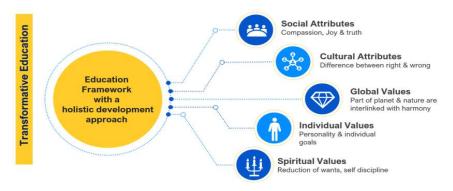
### A possible solution...



### Value-based Quality Education



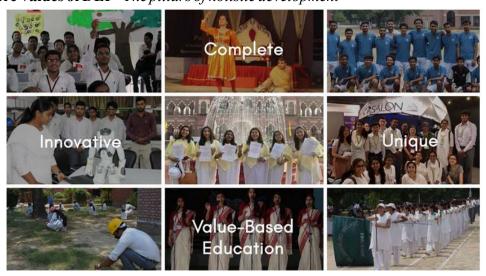
### Dayalbagh Educational Model of Value based Education



"Education, more education, education made perfect is the only panacea for our country's ills and evils. With more and real education I daresay we can easily raise the general level of intelligence of its teeming millions, create, in its future generations, the habit of clear and deep thinking and of appreciating new values that turn the acquisitive impulse of its people from its present direction to the direction of truth."

- Revered Sir Anand Sarup Kt., August Founder of Dayalbagh

# **Dayalbagh Educational Model of Value based Education Core Values of DEI** – The pillars of holistic development



Leads to 'A Complete Man: Well-Rounded Total Quality Person'



#### **Contribution as Individuals**



# Vision 2031:

Two Decade Strategic Plan 2012-2031 The DEI Strategic Plan is comprehensive, bold, and action oriented. It is a plan that will transform the institution by setting high goals, raising expectations, increasing accountability, and energizing the community.









"The physicist, in his study of natural phenomena, has two methods of making progress: (1) the method of experiment and observation, and (2) the method of mathematical reasoning. The former is just the collection of selected data; the latter enables one to infer results about experiments that have not been performed. There is no logical reason why the second method should be possible at all, but one has found in practice that it does work and meets with reasonable success."

— Paul Dirac Nobel Laureate

# डी.ई.आई. की शिक्षा के द्वारा सम्पूर्ण व्यक्तित्व का विकास

प्रेमप्यारा सतसंगी, प्रधानाचार्य, राधास्वामी स्कूल, मुरार (बिहार)

भारतीय संस्कृति हमें सिखाती है, कि जीवन को पूर्णता के साथ आनन्द पूर्वक जियें, जिससे हमारा जीवन मंगलमय हो। यदि हम जीवन मे दुखी हैं इसका अर्थ है कि हमारी शिक्षा में कमी है। जीवन जीना एक कला है। हमारे पूर्वजों ने इसके लिए चार पुरुषार्थ निर्धारित किए थे। वे हैं : धर्म, अर्थ, काम और मोक्ष। इन पुरुषार्थ को हासिल करने के लिए चार आश्रम निर्धारित किये गये हैं। ब्रह्मचर्य (25 वर्ष तक), गृहस्थ आश्रम (25 से 50 वर्ष तक), वान प्रस्थ (50 से 75 वर्ष तक), सन्यास (75 से 100 वर्ष तक)। डी.ई.आई. शिक्षण संस्थान में प्रारम्भ से ही शारीरिक, मानसिक व अध्यात्मिक विकास पर जोर दिया जाता है। यहाँ विद्यार्थी को सारगर्मित सूत्र दिया गया है:

# छात्रों का है, एक ही धर्म, अध्ययन, सेवा और व्यायाम।

अध्ययन, सेवा, व्यायाम को विद्यार्थी जीवन में आत्म—सात करने से विद्यार्थी के अन्दर चार वर्णों के गुण स्वतः ही विकसित होने लगते हैं, यानी ब्राह्मण, क्षत्रिय, वैश्य और शूद्र। इन्हें अपनाकर वे सुपरमैन बन जाते हैं।

यहाँ विद्यार्थियों को प्रारम्भ से ही "निष्काम सेवा" की शिक्षा दी जाती है। विश्वविद्यालय गान में सेवा का पाठ पढ़ाया जाता है — शिक्षा नयी शैली लिये विकसित हुई श्रमदान से — यदि आप कुछ पाना चाहते हैं, तो दूसरों की सेवा करना सीखिये। यहाँ उसी को अधिक सम्मान दिया जाता है जो सबसे अधिक सेवा करता है। सेवा एक ऐसा मूल मंत्र है, जिसे आप अपने अन्दर आत्मसात करके जीवन को सफल बना सकते हैं।

# ''सा विद्या विमुक्तये'' यानी विद्या वही है, जो मुक्ति प्रदान करे।

डी.ई.आई. के संस्थापक परम गुरू हुजूर डा. लाल साहब द्वारा प्रस्तुत नयी शिक्षा नीति के नये आयामों के अन्तर्गत शिक्षा द्वारा "सुपरमैन" के स्वरूप को व्यवहार में लाने की योजना का क्रियान्वयन हो रहा है। अब दूरस्थ शिक्षा द्वारा दयालबाग की शिक्षा सारे संसार मे फैल रही है। अब वो दिन दूर नहीं है जब डी.ई.आई. की शिक्षा दयालबाग संस्कृति में ही नहीं बल्कि विश्व की नई आर्दश संस्कृति होगी।

"विश्वविद्यालय दृढ़ता से खड़े हैं मानवतावाद के लिए, सहनशीलता के लिए, विवेकपूर्ण तर्क के लिए, विचारों के साहिसक कार्य के लिए और सत्य की खोज के लिए। ये उच्च उद्देश्यों की ओर मानव जाति के आगे बढ़ने के लिए खड़े हैं। यदि विश्वविद्यालय अपने कर्तव्यों का पर्याप्त रूप से निर्वहन करते हैं, तो यह राष्ट्र और लोगों के लिए अच्छा है।"

-पंडित जवाहर लाल नेहरू

''शिक्षाविदों को छात्रों के बीच पूछताछ द्वारा सीखने की क्षमता, रचनात्मकता, उद्यमशीलता और नैतिक नेतृत्व की भावना की क्षमता का निर्माण करना चाहिए और उनका आदर्श बनना चाहिए।''

– डॉ. ए. पी. जे. अब्दुल कलाम

# **Community Service As a Part of Education**

Padmaja Chalasani, Student of DD&T (2022-23) DEI Information Centre, Visakhapatnam (DN)

Community service is honorary work performed by a person or group of people for the benefit and betterment of their community without any form of compensation.

Community service is a form of volunteering done by a person or a group of people in the community by their own interest or because of the rules in the community.

### **Advantages of community services:**

- Brings the people of that community or different people together.
- People who volunteer for community service will realize and value their environment.
- Engaging in community service is refreshing and a great self- confidence booster, especially for younger generation.
- Community service teaches us discipline and gives a sense of responsibility towards the society.

In every person's life-'life satisfaction' is really important which can be achieved by volunteering for community service.

#### **Personal Advantages**

- Interpersonal communication
- Time management
- Leadership
- Delegation
- Communication
- Leadership and Problem-Solving

## Role in the education system

No education is complete without students being made to feel for the less privileged and marginalized. Being down to earth is an important quality and a trait in students' growth towards enlightenment.

The purpose of community service is to prepare students for their future by helping them learn what it means to be responsible citizens. Community service teaches students the value of serving others and helps them develop self-discipline and critical thinking skills.

It is vital for students to remain connected with their communities and to be role models. In order to achieve this, it is essential that students volunteer in local communities on a regular basis.

A student who volunteers their time and participates in community service activities outside of the classroom can demonstrate good citizenship and provide an opportunity for the student to build relationships with other people in the community.

While volunteering in community service activities, students develop real-world skills that will help them succeed in school and beyond. Most importantly, students learn that the work they do can make a real impact in the world.

By getting involved in community service at a young age, student benefits in a lot of ways:

- Develops an increased sense of social responsibility a global view of society and a heart for "giving back" and helping others.
- Builds relationships and 'social connectedness and exposes students to diversity and multiculturalism.
- Improves lifelong communication, interpersonal, and critical thinking skills. Will understand about compassion and empathy.

#### My Experience

I personally had no prior experience in community service. I came across such practice in Dayal Nagar Institute only. This was an amazing opportunity and a beautiful experience to share.

We were engaged in a 30-minute of field work and the bonding with the fellow

classmates has become even stronger and the communication between us also increased. The most appreciable part is - community service is a part of our education curriculum- which gives a holistic sense to the education pattern and an added advantage for the personality development.

### **My Opinion**

"The unselfish effort to bring cheer to others will be the beginning of a happier life for ourselves," said Helen Keller.

This quote divulges the true meaning of joy that comes from performing a good deed for others in the society.

Doing a community service provides a natural sense of **accomplishment.** Your role as a volunteer can also give you a sense of pride and identity. And the better you feel about yourself, the more likely you are to have a positive view of your life and future goals.

Selfless sense of volunteering always leaves a satisfaction in a person's heart and peace to their mind. Involving ourselves in a work adds a whole new meaning and value altogether.

Doing community service does lead to upliftment of one

"There is a certain sense in which I would say the universe has a purpose. It's not there just somehow by chance. Some people take the view that the universe is simply there and it runs alongit's a bit as though it just sort of computes, and we happen by accident to find ourselves in this thing. I don't think that's a very fruitful or helpful way of looking at the universe, I think that there is something much deeper about it, about its existence, which we have very little inkling of at the moment."

— Roger Penrose Nobel Laureate

"Wealth without work, pleasure without conscience, knowledge without character, commerce without morality, science without humanity, worship without sacrifice, politics without principle is sin."

— Mahatma Gandhi

# **The Educational Value of Sports**

K. Jeevan Lal Reddy, Diploma in Electronics 1<sup>st</sup> Year Batch (2022-23) DEI Information Centre, Visakhapatnam (Dayal Nagar)

Through education harmonious development of the mind and body takes place and is admirably assisted by sports. It is one of the paradoxes of life that when we consciously seek joy, half of what we gain is lost. Real enjoyment lies in getting something unexpectedly. In sports we go out more for enjoyment for physical benefit. It is for this very reason that our body profits more quickly and definitely through sports. There is no sense of dullness in them, no undesirable sameness or routine work as is often associated with the dumb-bells exercise. Each movement in hunting or boating or in football or cricket match is full of new thrills. What benefits the mind, influences the body also. Hence sports serve the purpose of physical exercise and bring an additional benefit in the form of recreation or pleasure.

The joy of sports is that it comes unexpectedly. No doubt, we go out for recreation, but we have no idea beforehand of the nature of the joy which we will get as each step in the game has its new thrills. And this newness is kept uptill the end, affording varieties of joy. Moreover, success at every stage is an incentive for its continuation and this prolongs the period of recreation . The succession of new thrills and joys is not found to the same degree in other forms of physical culture. Now, joy is essential to life, it prolongs the life and makes it worth living, and a part of this joy is given to us by sports. Hence sports serve the purpose of physical exercise and bring an additional benefit in the form of recreation or pleasure.

"Vulnerable, like all men, to the temptations of arrogance, of which intellectual pride is the worst, he must nevertheless remain sincere and modest, if only because his studies constantly bring home to him that, compared with the gigantic aims of science, his own contribution, no matter how important, is only a drop in the ocean of truth."

— Louis de Broglie Nobel Laureate