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Acknowledgment

This third volume of EXPRESS RIGHTings would not have been possible without the help of many persons & institutions who were sources of encouragement, inspiration and information. This compilation of articles is a product of original research, published research reports, assimilation of public information from various sources in public domain, learnings from discussions and observations.

To begin with, the Chancellor of SASTRA Deemed University Prof. R. Sethuraman has been kind enough to provide the much needed independence and institutional support to write on a variety of issues, including certain critical and incisive pieces. The feeling of being identified as a columnist and the meeting of people at various places who shake hands with me to say that they read my articles is wholesome. Such an experience to an upcoming columnist like me was possible by the ever-supportive Editorial Director of New Indian Express Group, Mr. Prabhu Chawla. His charitable breakthrough for me from 2010 has made my regular writing for NIE, a satisfyingly learning experience. Thanks are also due to the editorial leadership of other print media and to the print & social media readers and particularly those who share feedback like Shri. R. Subrahmanyan (Former Secretary, MHRD), Prof. D.P.Singh (Chairman, UGC), Prof. Anil D. Sahasrabudhe (Chairman, AICTE), Dr. Rajesh Naithani (Advisor, MHRD), Shri S.Ramadorai (former CEO&MD, TCS), etc., to the staff of NIE, who ring the warning bell for the article deadlines, a big thanks. Sincere thanks to Mr. Krishna Iyer for printing and publishing this book.
I am thankful to my family members – father, mother, wife, daughters and brother’s family for providing the right amount of time at the cost of theirs as and when required and for their understanding & co-operation.

If my book has been influential in any particular way, I owe it to the Almighty GOD and my Revered teachers. My eternal Pranams to them.

Dr. S.Vaidhyasubramaniam
Author
Foreword

The system of education shapes the destiny of future generations. Multi-stakeholder approach in policy making is the foundational pillar on which India’s educational edifice stands. Further, a nation’s development is inseparably linked to the quality of its socio-economic ecosystem which is largely affected by its educational system and its quality. One of the important stakeholders of this endeavour is the print media which is rightly called the mirror of the public opinion. The media space is enriched by various participants, including the columnists who share their individual ideas and analysis and, thus, contribute to the process of framing public opinion and consequently, the policy formulation. The media also serves as a catalyst in creating a multiplier effect that enhances and enriches the system. Thus, print media is a potent tool for nation building. It reflects the thinking of the people by way of honest reporting, researched articles, reasoned opinions and inspirational interviews. Of course, a journalist has to be unbiased in his reporting and should not be carried away by his personal ideology. The Ministry of Human Resource Development (MHRD) and the University Grants Commission (UGC) have recently embarked on various landmark initiatives in the field of education. The draft of much awaited National Education Policy is already in public domain which is the result of herculean efforts of the MHRD. Besides this, the four dimensional focus on inclusiveness, accessibility, affordability and quality with adequate space for autonomy has created a path way for Indian education to incrementally evolve into hitherto unchartered territories. I have been into the system of higher education for several years. I have been a beneficiary and also contributed to
the introduction of best practices in the system of higher education. The UGC is making all possible efforts to ensure that the quality of higher education is not compromised during this phase of unprecedented expansion of the system. UGC is also trying to bring an element of human values and professional ethics into the system.

I have been benefited by reading a number of articles and reports authored by various columnists and Dr. S. Vaidhyasubramaniam finds a place in my list of columnists. Dr. S. Vaidhyasubramaniam has mainly written on education with special focus on higher education, though, at times, he has ventured into other fields also like Sociology and Economics. His thought provoking articles have provided vital inputs which may be of great help for the policy makers. I have also enjoyed reading his articles and always found them addressing one or the other national issue.

The New Indian Express has been partner to the socio-economic changes which have been gradually taking place in the country. I congratulate Dr. S. Vaidhyasubramaniam for his thoughtful third compendium “EXPRESS RIGHTings.” I wish him to continue this good work of writing and, in the process, contribute in shaping the educational contours of the country.

Prof. D.P. Singh
Chairman
University Grants Commission

New Delhi.
27th December, 2019
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புதிய கல்வி வழித்தளத்துக்கு வரும் வளர்ச்சிகள் 151
Ventilator to escalator push for universities

The size of the top 10 combined university endowments in American and British universities for the year ending 2018 is a whopping $250 billion. Endowments in leading universities are used to finance various development activities, financial aid, student scholarships, etc. The endowment investment returns finance such activities and are a major instrument in the financial markets. The ‘Yale model’ of investment developed by Swensen and Takahashi seems to be the most popular model due its portfolio diversity. The combined success of philanthropy and governance has made this North American-European model of university endowment financing university growth.

A similar endowment-driven model exists but less pronounced in Indian universities—public and private. The source of endowment the world over for public and private is identical, banking on alumni and corporate philanthropy. However, the rate at which such grants are doled out depends on various parameters, tax laws being an important one. The need of the hour is a relook at the existing framework of tax laws in India and a possible reform to provide financial oxygen to the struggling universities that may not require funds now but need endowments to finance future progressive growth.

Existing laws provided tax incentives to donors, allowed institution to build a corpus for specific purposes, etc. However, recent Finance Bills have amended certain
provisions of the Income Tax Act that significantly impact universities. The intent of the amendment is understandable but the impact of it needs to be understood and amendment be modified suitably to arrive at a win-win solution.

Finance Bill 2017 amendment disallows corpus donations made to other approved and eligible entities as application of income. These forces trust to engage in avoidable expenditure to meet the 85 percent application of income criteria. Trusts/societies/charities, etc. that have established educational institutions may be allowed to create internal fund/corpus exclusively for infrastructure and student development out of their non-accumulated annual income without any time limitation.

Such indigenously created internal endowment solely for the purpose of financing future infrastructure and student development activities should be allowed as application of income and stay as endowment without time limitation on a perpetual basis to support various educational activities during adverse times.

Another important rollback in Section 35(1)(ii) of the Income Tax Act is absolutely necessary. The Finance Act 2018 has phased out the accelerated deduction granted to research donations made to eligible institutions which shall be only 100 percent from April 1, 2020. This has been phased out at a time when corporates have just begun to look at financing university research and such donations were beginning to rise. The Finance Ministry can restore the provisions of 35(1)(ii) in a graded manner—175 percent deduction for donations up to 5 crore, 150 percent up to 10 crore, 125 percent up to
`15 crore and 100 percent for donations more than `15 crore.

India’s march towards building world-class and research-driven universities need support through such exemptions to catapult university research and development supported by internal and external corpus grants to pull out research from ventilator and put it on escalator.

Reader’s Policy suggestion:____________________________________
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Indo-China magic formula in higher education reforms

By the time this article is printed and read, the Modi-Jinping summit would have concluded. The second informal summit that brought together two pairs of eyes and ears would have been watched and heard by more than a billion pair. The heads of the two countries that constitute almost 40 per cent of global humanity and pipped to be amongst the top 3 global economic superpowers by 2050 would have discussed many issues in the coastal and cultural town of Mamallapuram in Tamil Nadu. I’m neither an expert on China nor on diplomacy but it requires no rocket science to realise that there are many common pathways to traverse for both the Asian giants. There is no pre-scripted agenda for this summit just as there was none during the first at Wuhan, but wishful thinking is our personal choice and here is mine.

India and China are of same age in so far as their current country identities are concerned but both have a civilisational history that is a continuum of sorts. Currently, both have concerns in their economic growth, unemployment, infrastructure and utilities for a populous country, etc. The visit of Jinping may be shorter than the Wuhan summit but there are possibilities of creating a longer impact in many trouble-free waters. Higher education is a possible smooth sailing without rocking the diplomacy boat. Both India and China have common problems and solutions in higher education.

China would be more than quadrupling its undergraduate population which was 10 million in 2000 to around 50 million by 2020 and India would have also achieved its
targeted gross enrolment ratio of 30 per cent by 2020 and both expect more growth considering the explosive demand in higher education. The political will of China and India are both in harmony when it comes to putting education amongst the country’s top policy agenda. Both have put in place a vision for building world-class universities and China’s attempt is bigger than India’s which has surprisingly restricted itself to 20 compared to China’s 40. Both are betting high on digital and online educational value chain and flexible liberal arts-driven higher education than the structured and regimental model. Both will succeed in some and fail in some. Both are willing to break the rigid top-down barriers by infusing flexible and creative models of engagement. Both are moving towards student-centric than the legacy-burdened teacher-centric approach. Both want higher education as a tool for indigenous development.

India and China can come together for better success rates as there are common aspirations and areas of concern. The size and scale of the problem that needs to be confronted is as monstrous as the Chinese dragon or as fearsome as the Indian tiger. Both have infrastructure problems with China addressing it relatively better but still struggling. Faculty shortage and quality in teaching-learning mechanisms is native to both.

Though both are looking towards the West for solutions, it may be a right time for an Indo-China magic formula in higher education reforms.

Reader’s Policy suggestion:__________________________

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Empower and disrupt vocational education model

Prime Minister Modi recalled with pride his humble beginnings in a recent interaction at the Future Investment Initiative in Riyadh.

Humble beginnings and noble ideas that have the potential to scale the socio-economic capital of India need policy nourishment at all levels.

Can every citizen claim to be an expert in their humble and chosen field of expertise or skill in a society that recognises a certificate on paper more than a skill on the field? The answer is a definite NO.

We live in a society that never asks its formally educated PhD graduates and successful academics with world-class publications and patents what they have achieved but mindlessly ask the formally uneducated and successful wealth creators what they have studied.

Such an attitude overshadows and underplays the successful performers and over-glorifies and hyper-celebrates the arm-chair acrobats.

This, in my good friend Prof R Vaidyanathan’s words, is ‘terminological terrorism’ that puts down with sheer disregard creatively performing and vocational success underneath non-performing academic assets.

A country with high demographic dividend like India cannot afford to let this happen. We need to provide academic pathways to those who tread unchartered routes of success in a society that craves academic identity for proven abilities.
The PM’s vision of a $5-trillion economy to make India a global economic powerhouse by 2025 is a challenging call but realisable.

There is plenty of socioeconomic potential that needs to be unlocked from the skilled and creative workforce of India which is unfortunately burdened with regulations and policy hurdles.

A blue-ocean approach is required to make the existing red-ocean framework irrelevant to allow genuine skills, arts, craftsmanship, etc. to sail in trouble-free waters.

Certain regulatory bottlenecks need immediate solutions to create a multiplier effect on India’s skill and vocational output. Some are also related to the role of universities and the delivery mode.

All accredited universities must be empowered to award certificate and diploma programmes in vocational education without the need to obtain approval from regulatory bodies or other central/state agencies.

Universities are by definition competent to award degrees and diplomas. One can understand the need for tight regulations for professional programmes like medicine or engineering but to expect universities to join the tiring approval queue along with stand-alone institutions for vocational education needs a course-correction.

Many skills, arts and other programmes that can be offered in the online mode need to be encouraged liberally without the existing unreasonable demand of such courses to be offered in the regular mode.

In this age of booming online education, there are certain programmes that best fit the online mode than
the traditional mode.

Such programmes need immediate relief from the current regimental online regulations. In both cases, adequate monitoring mechanisms are however essential in the interest of quality.

In a skilled society that craves academic certification, the acceleration of India’s socio-economic capital needs empowerment and disruption in Indian universities’ vocational and online education models to create a massive multiplier effect.

Reader’s Policy suggestion:________________________________

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McDonaldised MBA cannot get nationalised

When IIMs started proliferating in 2010-11 despite an over-supply of Grossly Overpaid MBAs, I was prompted to term this as 'McDonaldisation of MBAs'. This mushrooming of B-schools also spread across the nation resulting in over 3,500 MBA institutes today.

A very fragmented MBA education system is, however, united by a Utopian objective to create global managers. If all MBA institutes prepare global managers, how can regional, national, local problems be solved? While this double-barrelled gunshot to management education is still nursing its wounds, came another management education policy bomb from the Supreme Court (SC).

The SC recently held that MBA doesn’t come under the definition of technical education as defined in Section 2(g) of the All India Council for Technical Education (AICTE) Act, 1987.

The issue of approval from the AICTE by universities has been dealt in the cases of Bharathidasan University, Association of Management of Private Colleges, Army Welfare Education Society, Orissa Technical Colleges Association and IIPM. Finally, the regulatory pendulum, which was swinging on either side from 2002, has settled at its present extreme side.

As it stands today—in the absence of any review and status-quo restoration by SC—any institution can offer an MBA education without the approval of the AICTE. This shall not only result in an academic frenzy but also raises fundamental questions on approval and degree-granting powers.
The worst-affected will be the standalone institutes offering Postgraduate Diploma in Business Management (PGDBM, equivalent to MBA).

Though IIMs also offer these programmes, they have the umbrella protection of being institutes of national importance and hence no questions on their nomenclature, fee structure, extra-territorial campuses, etc.

The non-IIMs are in a ‘Trishanku’ state and so are students—both unaware of the approval authority for MBA education in India.

A review application before the SC or amendment in the AICTE Act may be a solution, but appears distant realities. The issue was decided by the First Bench of the SC and hence hopes of review depend on the extent of constitutional issues involved.

Secondly, when there is a policy move to merge University Grants Commission (UGC) and AICTE through a separate statutory enactment, would an amendment to AICTE Act be necessary? The problem at hand has three possible interim solutions:

All UGC-recognised universities can offer MBA programmes without the approval of the AICTE.

All colleges affiliated to universities recognised by the UGC can offer MBA programmes without the approval of the AICTE as long as they are affiliated with a university.

All standalone institutes currently offering the AICTE-approved PGDBMs be approved by the UGC.

However, in exercise of their statutory powers to prescribe norms and standards and to keep a check on quality, the UGC or the AICTE or both together may
frame a regulatory mechanism to monitor management education with provisions for strict action on deviants till a final policy decision is taken.

Since, admission announcement for 2020-21 is around the corner, a policy clarity shall prevent McDonaldised MBA getting nationalised.

Reader's Policy suggestion:____________________________
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New Kodak moment for old eureka moment

Eureka,” shouted Archimedes as he stepped out of his bathing tub the moment he experienced the water volume and body weight relationship. In this current generation of immersive and experiential learning, schools or households cannot have bath tubs for students to test Archimedes’ principle with their own Eureka moment.

We need to give the students their own Eureka moment using new-age Kodak moment digital technologies. Is India ready for this massive upsurge that has the potential to sweep the entire education landscape? The answer is a simple ‘Yes’ and here is why and how.

The recent 2019 report of the Global Entrepreneurship Monitor (GEM) has introduced the National Entrepreneurship Context Index (NECI), which ranks economies based on 12 indicators of the external context that can influence entrepreneurship.

The NECI score is arrived at by looking outward at the environment for entrepreneurship, reporting on societal attitudes, self-perceptions and entrepreneurial affiliations with entrepreneurs. Assessing the economies of 58 nations based on 12 framework conditions, GEM ranks India at an impressive five for its healthy entrepreneurial context.

The rank in innovation-driven entrepreneurship is again an impressive three offering a completely new range of products and services that no other businesses offer.
The capability of India as an innovation-driven economy is also visible in its jump to 52 in the 2019 Global Innovation Index.

The dual combination of being an innovation-driven entrepreneurial economy provides a good platform for a disruption in the education system using emerging digital technologies of which Virtual Reality (VR) is an explosive tool.

The range of benefits VR offers is from a simple immersive experiential and contextualised learning to advanced capabilities like remote presence, time machine effect and global teleportation.

VR presents itself as an inspirational tool for entrepreneurial growth in the education sector, beginning with K-12 and beyond. The dual challenge of physical infrastructure and teacher quality in schools has always been an area of worrying concern to policymakers.

The plentiful problem presents bountiful VR solutions which has a very wide range of applications in school education at all levels—pre-school, primary, secondary and higher secondary.

The policy map for using VR in school education will be a good start to focus on the larger ICT policy. Globally, we are only at the dawn of this powerful technology and India has the innovation drive and entrepreneurial energy to convert this VR opportunity into a massive social policy instrument.

There is a global shift in the way in which school education is shaping up with learning pains removed with gaming fun inside classrooms.
Kodak failed to reinvent itself in the changing landscape of digital photography. Indian school education cannot afford such a costly failure. The Draft NEP has identified the use of ICT in education and there cannot be a time more appropriate than this to create the old Eureka moments using new Kodak moments through Virtual Reality.

Reader's Policy suggestion:

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Education’s Heart Beats for Progressive Progressive Bharat

The Government of India Act, 1935, to a large extent administers the supremacy of the Constitution of India with the Supreme Court, in the words of Justice Patanjali Sastri, doing its job as “a sentinel on the qui vive” as the constitutional safeguard. Rule-making in the form of guidelines, regulations or Central or State Acts in that order traces its enforcement power. There is a catena of judgments that establishes the supremacy of constitutionally valid Central or State Acts.

Subordinate legislations like regulations or guidelines cannot exercise any power or travel beyond the scope of the Act or the law of the land interpreted by the Supreme Court. In any policy making or statutory enactment process, this fundamental cannulation of power needs to find its natural flow without any exception. Education is no exception.

The aviation rules for commercial aircraft travel laid down by the Directorate General of Civil Aviation (DGCA) are uniform in so far as the safety of the passengers inside the aircraft during flying is concerned. Whether a passenger is travelling business or economy they are subjected to the standard set of five non-negotiable safety conditions during take-off and landing—straight seat, seatbelt, food tray, window shutters and ban on use of electronic equipment. No business class passenger can claim special rights on these five as the safety of the aircraft during flight is supreme. No subordinate regulations or rules can change this basic aviation safety rules.
Likewise, all types of educational institutions are subject to certain basic norms and standards, the contours of which are either statutorily or judicially framed without any scope for watering it down. The reasonability and enforceability of subordinate legislations must pass this simple statutory or judicial test. The Union Government as part of Prime Minister Narendra Modi’s 2.0 is reported to have shortlisted 167 transformative ideas as part of the first 100-day agenda-action plan.

There is no doubt that education will have its share in the 167 ideas and more importantly, higher education. The recent Union Budget has certain provisions for education. However, being in the concurrent list, education is not a Union Budget exclusive but also includes various states’ budgets.

Nevertheless, budgetary allocations don’t make right or wrong educational policies. It’s the spirit behind pushing Education 4.0 into the orbit of World (Industry) 4.0 under Modi 2.0 that makes the difference. A slew of progressive policies announced during PM Modi’s first government is ready for launch during this second term. Caution is required to ensure that such policies pass the simple test of judicial and/or statutory compliance to avoid any major embarrassments.

The need for a three-phased approach cannot come at a time more appropriate than this. The three phases of growing India’s educational tree are—plant a seed (NEP), water and fertilise the plants (Acts & Regulations) and pluck the low-hanging fruits (timely and ripened decisions). In short: As Modi’s 2.0 educational heart beats towards Bharat’s progress, the
heart of education lies in the art of implementation.

Reader’s Policy suggestion: ___________________________

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Online Degree Needs No Regular Pedigree

If racing and driving simulation games can be sold by companies only if they are manufacturing regular automobile cars and bikes, the entire simulation and gaming industry will come down crashing. Why should gaming products sold for entertainment require the seller to have a manufacturing facility for cars and bikes? Extending the same logic to the online education ecosystem, why should online programmes be offered only if the universities offer the same in regular mode? This valid question needs a careful response as gaming is for entertainment while online education is for enlightenment.

Various reports are upbeat about the global e-learning market which is estimated to reach around $330 billion by 2025. Of this, lies the global massive open online course (MOOC) market, which is estimated to be valued at $3.61 billion and is expected to reach $25.33 billion by 2025. MOOC is a platform that enables users to learn courses online without any limit on attendance.

The role of India in this online and MOOC market is significant with huge potential for export of Indian education. Prime Minister Modi launching the Pandit Madan Mohan Malaviya mission for teachers at the Banaras Hindu University called for an effort to export India’s teachers globally. The knowledge economy in online space has a rapid multiplier effect if it’s fuelled more by digital teaching assets and less by physical mobility of faculty resources making the PM’s target a
India’s response has multi-dimensional positive pathways—from online education in school to university to workplace and other potential areas. While the corporates have their own learning and development tools to meet their internal demand which is also not adequate, the higher education space is bubbling with promise, thanks to SWAYAM. And the University Grants Commission (UGC) has rightly notified the regulations to uncork the potential of Indian online education in the global eduspace.

The concern of UGC to ensure that online education can be in programmes that are offered only in the regular mode which has graduated one batch is understandable. The need for quality enforcement mechanisms requires no emphasis and the UGC’s restrictions need to be seen in that light. However, such speed-breakers can be smoothened.

Way forward: The UGC needs to ascertain the available expertise of teaching faculty in interdisciplinary universities and eligible higher educational institutions. It should encourage those having adequate faculty to offer online courses without any regular course or graduation embargo as availability.

The same may also be followed for the Open & Distance Learning programmes as many lack access to formal education in India. In both modes, UGC can ensure that the desired educational outcomes and metrics are achievable. This shall avoid unnecessary physical infrastructure in the brick and mortar mode, and
encourage building digital assets in the bits and bytes mode. For online education, in-house faculty availability is the key and not the regular mode or graduation precedent. In short: Online degree needs no regular pedigree.

Reader’s Policy suggestion: ____________________________

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Global Industry 4.0 Needs Indian Education 2.0

The PWC report titled ‘Workplace of the Future’ discusses on the competing forces shaping 2030. Triggered by four types of working worlds—Red (Innovation), Blue (Scale), Green (Societal) and Yellow (Human)—these forces not only will be transforming the workforce skills but also will exert significant pressure on the global higher education ecosystem to prepare the next generation of graduates.

The World Economic Forum (WEF) also has identified this tectonic shift as the Fourth Industrial Revolution (4th IR). If history serves as our right guide, the 1st IR resulted in America’s ‘New Education’ that shifted higher education from the dominant classical approach towards the German model of postgraduate research leading to dozens of research universities in America. The 2nd IR (1860 to 1900) resulted in ‘New Economy’ fuelled by energy-based manufacturing technologies.

This new wave created and expanded access to higher education institutions in the North Americas and Europe. The 3rd IR was characterised by the rapid growth of information technology through computerisation and web inter-connectivity developed through the 1980s and 1990s. The ripple effect of this is still being felt across different stakeholders. The 4th IR has many tipping points for technology and society to undergo a rate of change that is unprecedentedly necessitating a tectonic shift in the future of education.

The architect of the term 4th IR, the WEF, has several of
these tipping point examples—implantable cell phones by 2025, 80 percent of people with digital presence by 2023, 10 percent of reading glasses connected to the internet by 2023, 90 percent of people connected to smartphones and the internet by 2023, one trillion sensors connected to the internet, 50 percent of internet traffic directed to homes and appliances by 2025, etc. Increasing population and loss of arable land due to global climate change, social behavioural changes due to a connected world, growth and evolution of organisations, geopolitical race for intellectual and economic supremacy, etc. have also aggregated together towards a clarion call for preparing the next generation of learners into a work and life space characterised by the 4th IR.

The sequencing of higher education to renew skills and create a life-long learning ecosystem in an environment that is dynamically networked by 4th IR features is a critical challenge to overcome. Apart from the complexities in the global higher education landscape, the Indian higher education—one of the largest in the world—has its own influencing variables.

Not only has it got the uphill task of scaling up to the demands of the 4th IR but also needs to do it in an ecosystem burdened with varied forms and style. This will easily be the world’s largest effort to build a talent pool of students and faculty for survival and leadership roles. Like the Stanford 2025 project or other global
university transformation missions, such a massive Indian effort requires a research-innovation-teaching-learning roadmap with a vision, strategy and action agenda spanning over a 15-year period. In short: Global Industrial Revolution 4.0 Requires Indian Education 2.0.

Reader's Policy suggestion: ________________________________

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Focus Needed on Potential, Kinetics of Education

According to law of conservation, energy can neither be created nor destroyed but can change from one form to another. Whether it is the kinetic energy, which is based on velocity, or potential energy, which is based on position, the law holds good. In the field of education, knowledge can be created or destroyed or can acquire different forms. Destroying knowledge can never be the objective as education definitely creates new knowledge or transmits existing knowledge. And the educational ecosystem must be endowed with high levels of energy, potential or kinetic, to enrich the human capital.

The potential energy of education is measured by the increase in levels of educational attainment. The levels of new knowledge creation keep increasing with the learner’s educational elevation. It is limited by an individual’s accessibility, affordability and the extent of inclusivity in formal education at school or college level. The demand-supply gap is inconsistent, with some forms and disciplines of education having a ‘supply problem’ while some having ‘demand problem’. The challenge is to fix both the issues in their attempt to meet the Gross Enrolment Ratio (GER) targets.

The kinetic energy is measured at the rate at which knowledge is transferred across the education ecosystem. Faster the rate, more is the kinetic energy. This transfer need not necessarily be among those participating in the formal institutional network of schools, colleges and universities, but can also happen in
other places—home, workplace, etc. It also has limiting factors. The need for emerging technology paradigms, models of engagement, etc, are some of the challenges that limit the velocity of knowledge transfer. And as the velocity reduces, the kinetic energy also reduces.

The sum total of energy in education needs a multiplier effect to increase both the potential and kinetic parts through path-breaking reforms. Though the effort of the government to achieve the 12th plan Gross Enrolment Ratio (GER) target is certainly laudable, the GER in higher education is still low when compared to global average.

However, the higher education GER does not capture all forms of knowledge creation. The amount of knowledge created by various non-formal entities in vocational and skill education is phenomenal but do not get factored in the GER arithmetic which follows the notional global practice missing the national community wisdom. If such knowledge creation is given its due recognition, the potential energy of Indian education system will be higher than its current levels.
The fuel for Indian education's kinetic energy is the internet and the efforts of the government through many digital interventions like NKN, NPTEL, SWAYAM, etc, have laid down the broad contours for a perfect online education launchpad. The speed with which online education travels increases the kinetic energy of education manifold as bits and bytes transcend conventional boundaries. India’s education energy explosion needs a double-barrelled policy framework for potential creation and kinetic expansion.

Reader's Policy suggestion : ________________________________

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Celebrate, calibrate and cerebrate India’s education policy

Prime Minster Narendra Modi in his recent address at the Global Business Summit said, “I am also confident that India may have missed the bus during the first three industrial revolutions, but this time, it is a bus India has not only boarded but will also drive.” The entire speech was studded with positivity and optimism on India’s march towards becoming a global leader.

The showering of confidence by the Prime Minister makes me go one step further to add that we have not only boarded the bus and driving the bus but we also own the bus for global development through policy making that has shifted gears from the traditional five-year plans to the NITI mode. My friend’s comical statement refers to the first draft of the 12th Five-year Plan that resembles the 12th draft of the first Five-year Plan starting with the same set of problems. Every country has its problems, but can the country be a problem? Every educational system has its problems, but education cannot be a problem.

PM Modi also spoke on India as a global contributor and not just a consumer. Indian education has a lot to offer to the world and cannot be (mis)understood as it is now. Unburdening the antiquated policy making, we are beginning to see progress in it. Such policies need to be celebrated for confidence-building, calibrated for connection and cerebrated for catalytic action. This ‘3C’ approach has a few highlighting pointers.

The progressive policy making is tellingly visible in
the HRD ministry’s conscious and honest efforts to build globally competitive nation-building institutions, recognise nation builders and also inject genuine nationalism among students. The string of policies that encourage graded autonomy, global and national collaborative research and teaching, online education, recognising private institution’s role for public good, etc, are policy positives worthy of celebration. There are certain policy hurdles either due to flawed design such as the Institutions of Eminence regulations or faulty implementation such as the teacher education policy ecosystem, but certainly enough is there to celebrate and build confidence.

When confronted with a question on quality of education, we often refer to the American or European or Australian model failing to recall an Indian model due to ignorance. The mainstream discourse often rests on foreign comparatives than on indigenous narratives. A diverse country such as India has extremes on both sides but still manages to deliver results.

The school and higher education systems, which are interwoven in pursuit but isolated in practice, need to be calibrated to achieve learning outcomes that are India-centric to solve the country’s problems with a global outlook. We need to calibrate our learning outcome approach and build case studies (referred as use cases in corporate) to respond to questions on quality of education with an emphatic Indian response. Such calibration must be with synergistic coherence between schools and higher education, which needs a calibrated connect with teacher education being the connecting bridge.
A Newtonian external push is required to remove the inertia in accepting non-traditional and non-formal teaching-learning mechanisms. While digital and online education is formal and getting its due share in policy making, it still appears to be an ivory tower elitist. In addition to digital and online, there should be a concerted effort to reduce the gap between the illiterate employers and literate employees. Innovation and entrepreneurship that drive native success stories seem to overwhelmingly lie outside the formal education orbit. Policy making requires deep cerebration that can catalytically provide an academic recognition to accomplished abilities.

(Extracted and modified from the author’s speech at the recently concluded ThinkEdu 2019)

Reader’s Policy suggestion: ______________________

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Make sure to go deep beyond the surfacial scratch

The clings and clangs of the crockery and cutlery usually overpowers the vocal output in ‘conclaves’ or ‘summits’ or similar gatherings. Things settle for follow-up action and before it happens, arrives the next year’s cycle of cutlery, crockery, cling and clang with a big bang. However, some events are closely watched and one such is the World Economic Forum (WEF) at Davos. Also widely read and circulated was the China cover story in one of The Economist despatches of January 2019.

A fortnight back, at the Swiss ski resort of Davos, the global elites from corporates, media, public policy, politics, etc, discussed the state of the world. Tonnes of newsprint and terabytes of space were consumed to cover this. Many issues occupied centre stage: Oxfam’s global inequality report, industry 4.0, environment, economy, trade tensions, etc. Though all of them had global impact, my eyes rolled into future issues on areas of my immediate concern: economy, markets and skills; and all the three had an Indian story which I want to finish with a Chinese flavour.

A WEF report puts India as one of the fastest growing economies with its annual rate of 7.5 percent sustainable over a decade. It also estimates a significant jump in consumer spend which will be predominantly driven by increased income levels, digital penetration and rich demographic dividend. The third most important trigger for excitement is the consumer archetype comprising seven broad types—sophisticated rich,
conservative rich, connected aspirants, middle India, young and savvy, poor dreamers and poor rural.

Here is an interesting statistic on this consumer archetype—40 percent among the sophisticated rich, 65 percent among the connected aspirants and 50 percent among the young and savvy have education attainment levels up to Class X only. However, their access to smartphone and connected devices is 95 percent, 95 percent and 65 percent respectively. The rate at which the urban-rural divide is getting bridged through the Digital India throws open a large opportunity to scale India’s next decade of educational growth.

IBM CEO Ginni Rometty at the recent WEF annual meet called for an educational model that prepares learners with skills of a new collar worker, neither blue nor white. The Economist in its January 2019 cover story titled ‘Red Moon Rising’ traced the evolution of China as a leading scientific power in the world. Preceding this great scientific experiment was China’s leaping stride to massify its university education. With a little over 1,000 universities in the early 2000, China today boasts of 2,600-plus universities with a mammoth enrolment of over 20 million students. The growth has also been significant in the number of international students.
The Indian story has a promising future with India’s competitive advantage in its English proficiency that can give it an edge over China as it did in the Industry 3.0. Industry 4.0 is a bundle of hope for digital and online education in India. The enriching opportunity gives the feeling that we have only scratched the surface.

Reader’s Policy suggestion: ________________________________
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Need academic thunderstorm, not drizzle

When the chairman of a $100-billion salt-to-software conglomerate addresses his employees, it is always studded with key takeaways. N Chandrasekaran of Tata Sons in his latest New Year address reminded many that he is India’s 21st century response to America’s 20th Century Jack Welch. “Run our marathon, don’t be distracted by somebody else’s sprint,” said Chandra (as he is popularly called) who stressed the need to focus on concern areas that can be controlled.

I only tweak his message to suit the Indian higher education system and believe that higher education institutions have to run, jump and throw in their decathlon without being distracted by other institutions’ sprint. Policy-making in higher education needs to provide an enabling ecosystem that encourages collective talent-building to win the global decathlon for academic excellence.

In the global race for academic excellence, the best institutions have in one brick and mortar campus lightening sprinters, crafty hurdlers, avian jumpers and muscular throwers packed in different person’s flesh and blood. Such a composite university atmosphere ensures a coherent synergy across academic disciplines that enable the institution to win the academic decathlon.

However, it appears that higher educational institutions, which are good sprinters (read specialised excellence), aspire to be the best in all without any capacity building for the remaining academic disciplines. A
good technology institution aspires to be the best in management, social sciences, liberal arts, etc. without any internal capacity. Is there a policy prescription to this? Yes. There is. Will it cure the ailment? No, as the dosage is not adequate. Here is why.

The MHRD’s visionary policy of declaring 20 higher educational institutions as ‘Institutions of Eminence’ (IoE) is the right prescription but administered with a wrong dosage. The main objective of the policy is to encourage them to become world-class institutions. Renowned academic Philip Altbach says, “Every country wants a world-class university. No country feels it can do without one. The problem is that no one knows what a world-class university is, and no one has figured out how to get one.” India is no exception in this race.

A country that has the third largest higher education system next to the US and China cannot afford to conduct an experiment with a disproportionate selection of 20 IoEs. The IoE orbit should expand to include its sibling, the Category 1 Universities, which are also identified through another regulatory policy vehicle. In addition, all specially created institutions such as the IISERs, IIMs, IIITDMs, TISS, NID, ISI, etc.—totalling to over 100—must be freed from the regulatory regiments of UGC, AICTE, NCTE, etc. All these institutions must enjoy full academic and administrative freedom for a minimum five-year period. They must be allowed to innovate the way in which they run, jump and throw, and finally manage to win a decathlon.
Signing off with a hope that 2019 will open the policy sky for an educational thunderstorm and not a drizzle.

Reader’s Policy suggestion: ______________________

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Policy fertiliser a must for nutritive innovation

The McKinsey-NASSCOM 2005 report made headlines with its sweeping generalisation based on a study involving an insignificantly diminutive sample of HR managers. Responses to an open-ended general question to around 100 HR managers (only 10 from India) on employability of Indian engineering graduates was later virally spread as “only 25 percent engineering graduates are employable syndrome”. Even today, conferences and seminars keep quoting this sorry statistic. After listening to the Higher Education Secretary of the Ministry of Human Resource Development in an event last week, there is no doubt that the time has come to debunk this 25-percent syndrome.

The emerging role of India in the global Information Technology landscape is studded with milestones of achievements to which the Secretary’s speech is a crowning glory. The growth in the Indian IT industry from $74 billion in 2010 to $160 billion in 2017 is a serial success story. Many firms have become truly multinational with delivery centres across the globe. This $160-billion IT industry employs close to four million people and is expected to reach $350 billion by 2025. The Indian IT industry will continue to be the leader of the global sourcing industry with its current market share being a dominant 55 percent. All this growth is happening despite the much talked-about Artificial Intelligence, Machine Learning and other global IT empowering enablers still at their nascent stages.
Fat training budget of IT companies, strong relationship between industry and academic institutions, native intelligence of Indian students, etc, have together mixed well to only increase the employment opportunities moving forward. Not only has the engineering graduates’ quality improved substantially in the last 10 years leading to gainful employment but also the thirst for entrepreneurship has seen a significant spike. India currently is third in the global start-up ecosystem with over 5,000 start-ups. This is not only reflected in India’s rise from 81 in 2015 to 57 in 2017 in the Global Innovation Index but also in the quality of its STEM undergraduate students as measured by their academic and critical thinking skills.

The levels of academic and critical thinking skills among Indian and Chinese STEM undergraduate students measured during their entry and exit stage of their undergraduate education present an interesting comparative. While STEM undergraduates suffer a loss between the first and final years of study in China, there is significant gain among Indian students during this period. Results of a Stanford University study are awaited for more detailed analysis, but this is enough to welcome the MHRD-AICTE’s recent launch of a mission-mode Institutions Innovation Cell which is an attempt to increase the creative talent of engineering students.
Such a talent pool in India’s engineering education is undoubtedly a copious feed to its innovation ecosystem which has found its fertiliser not only in the country’s industrial startup policy but also in its recent higher education policy.

Reader’s Policy suggestion: ____________________________

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Green Diwali for Grey Matter Economy

My search for the best restaurant serving organic menu ended at Zomato. Our family’s effort to reach the place with ease ended with Uber. My wife’s dream of enriching the kitchen inventory with organic ingredients ended with Amazon. The gastronomic appetite for organic food was fully satisfied, thanks to the ‘ZomBerZon-isation’ of my kitchen. Is such a solution available for cerebral hunger also? Can the thirst for knowledge be quenched by ‘ZomBerZon-isation’ of education?

A digital restaurant discovery platform, Zomato aggregated all restaurants together to provide an institutional information exchange. Transportation’s digital tsunami came in the form of Uber that aggregated individuals with own or leased cars and other vehicles to provide the last mile service through innovative data patterns.

The world’s second-largest private employer, Amazon, integrated institutions and individuals as buyers and/or sellers into a digital market space powered by innovations of mind-boggling proportions. Result: Many end-users’ different needs have been captured as product or service commodities available at doorstep through the power of ‘phygital’ economy. Such a possibility exists for education at all levels.

Different institutions offer courses that meet learner requirements with different levels of customisation—general to specific. However, the aspirational dream of
learning Strategy from Michael Porter or Art and Theatre from Amitabh Bachchan will continue to be a dream if such names are not members of an exploding knowledge economy. Can contemporary institutions in their brick and mortar mode of educational transaction embrace the bits and bytes mode of educational transformation to usher in the defining moment for education?

At the policy level, the Ministry of Human Resource Development has created SWAYAM (Study Webs of Active—Learning for Young Aspiring Minds) with enabling regulations from statutory bodies such as UGC, AICTE, etc, to encourage facilitated online course completion. Another pathbreaking regulations in the form of online universities is also in the pipeline.

Backed by a strong infrastructure ecosystem like the National Knowledge Network and other initiatives that have the last-mile reach, we need a robust online educational superhighway that brings together institutions and individuals delivering products and services. Products such as smart hand-held devices, video lectures, bandwidth, etc, and services such as assessment solutions, tutoring and facilitation, mentoring, etc, need to be offered in this online boutique.

Such a knowledge marketspace must bring together recognised certifying institutions (Zomatoise), renowned subject matter experts (Uberise) and integrate them in a digitally empowered and enlightened marketspace (Amazonise) to ensure that phygitisation of education is complete. Success stories in higher education pilots with the learning experience can be replicated for more success in all forms of education. We cannot afford a red
signal for this grey matter cracker which is definitely green!

Reader's Policy suggestion: ________________________________

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Micro and macro layers of teacher education policies

If you are planning for a year, sow rice; if you are planning for a decade, plant trees; if you are planning for a lifetime, educate people.” This Confucian saying has a significant impact on the role of individuals in shaping a society, however big or small it may be.

The teacher-student relationship is eternally valid as there has been no recorded evidence in the past nor will there be one in the future of a teacher-student divorce.

Teacher policies globally recognise the unprecedented pace at which the dynamics of the 21st century teaching profession is shifting and calls for sweeping reforms in teacher education policies, systems and practices.

There is no disagreement hence to the fact that teachers and teaching quality is the double-barrelled gun that can fire a knowledge explosion—the explosion being multi-dimensional to include not only academic knowledge but also cognitive abilities in addition to human values to life. The World Innovative Summit on Education and Qatar Foundation in association with National Institute of Education, Singapore, published a report recently on ‘Teacher Policies: Global Best Practices for Developing the Teaching Profession’.

The report is a result of a survey that captures various established and emerging high-performing systems in Finland, Singapore, Ontario, Shanghai, Hong Kong, Massachusetts, California, South Korea, New Zealand, and Qatar.
The report identifies 10 key areas for countries and societies to align themselves to shape the careers of teachers.

- **Recruitment of quality candidates:** The need for attracting the right people with a right bend of mind.

- **Compensation and incentives:** The need to change the negative image of teaching profession as the last resort:

- **Initial teacher preparation and accreditation standards:** For effective teacher career growth.

- **Career development structures:** Multiple career tracks and resourceful talent allocation.

- **Professional development and continuous learning:** To align teaching practice with evolving learning outcomes.

- **Accountability, performance management and evaluation:** Focussing on teacher development and accountability

- **School leadership:** Capacity building to prepare teachers as leaders.

- **Teacher symbolism:** The profession as an inspirational role model

- **Policy integration, alignment:** Coherent synergy with an integrated policy framework with intermediating layers

- **Future orientations:** The changing roles of teachers from being knowledge disseminators to assimilators.
The first five are the micro layers targeted towards individual teacher development while the next five are the macro layers towards the establishment of the structure for implementing teacher policies with a visionary eye on the long term. India’s response has also been significant with its efforts aligned towards policies, strategies and implementation in these areas. As we celebrate Teachers’ Day, may the noble profession of teaching charter a nobler future to advance the noblest ideals of life.

Reader’s Policy suggestion : ________________________________

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Higher education needs a six-pack autonomy

During my high school days, the practical sessions on Biology were a mixed bag. The human skeleton display to understand the system gave me a scary learning experience that was doubled as I took the scalpel to cut open the pinned rat under the influence of chloroform to understand human anatomy. I will never forget the rat I got for my final exams which I termed as a ‘rasgulla with a tail’. Not sure if I would be able to successfully dissect it to pass my final exam, I requested for a rat-change. “You cannot choose your question paper (rat) but only answer the one you have, as I do not have any autonomy to change exam rules.” My lab mark for anatomy was trapped by a lack of exam autonomy. I am reminded of this as I think about university autonomy.

Autonomy in Indian higher education needs a trinocular vision. The MHRD is moving away from a traditional regimental approach with a new wave of positive dynamism ushering new hope of progressive autonomy. The Institutions of Eminence (IoE) for Global, Graded University Autonomy Regulations for National and the formation of a separate Ministry for Skill Development & Entrepreneurship to leverage local competitiveness is proof of that. Skill-based institutions can over a period of time become world-class vocational universities and Category 1 Universities are also candidates for IoE. The success lies in the six-packed agenda presented below.

- Public IoEs must be conditionally supported by priority access to Higher Education Funding Agency (HEFA)
to securitise their infrastructure growth. A portion of funds must be earmarked for performance-based global collaborative research and faculty mobility to both public and private institutions.

• IoEs need to develop a composite university culture. The hallmark of successful world class universities is their comprehensive and pervasive academic ecosystem.

• In the spirit of competitive encouragement, Category 1 Universities under the graded autonomy regulations that are progressing need to be elevated to IoE status if they retain their Category 1 status and erring institutions need to be demoted.

• Category 1 Universities be allowed to offer open and distance education and online programmes for non-professional degree programmes without the need to obtain approval from the UGC or other statutory bodies.

• Category 1 Universities and autonomous institutions be allowed to award diploma/vocational degrees to engineering and non-engineering programme drop-outs subject to their meeting certain credit requirements. This shall support the growing requirement of skilled workforce and increase employment and entrepreneurial opportunities.

• The convergence of human desirability, technical feasibility and economic viability leads to innovative entrepreneurship which needs to be nurtured by a tripartite coherent synergy.
This anatomy of higher education has fertile brain, fresh blood and flexible bone to provide a proteinous diet for a six-pack academic autonomy.

Reader's Policy suggestion:__________________________

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Higher education needs a policy trinity

The number three has significance across religions, civilisations, culture and belief systems. The universal power of three manifested in its multiple tripartite avatars—world as heaven, earth and waters, human as body, soul and spirit, actions with a beginning, middle and end etc—is also symbolic of every creation which has a past, present and future. Can Indian higher education be any exception?

Indian higher education can be characterised into three distinct time periods—the formative years (past), expansive years (present) and the transformative years (future). The ancient Indian higher education system is a different success story that should have catapulted the global scene but unfortunately lying in cold storage. A legacy pride that has the capacity to blend with modern thoughts to universalise global education is a subject matter of neo-liberal trivialisation at its birthplace. A coherent synergy can recover the lost ground before other advanced systems claim intellectual supremacy. Back to the topic.

The pre- and post-Independence formative years saw the growth of public institutions—State Universities, Indian Institute of Science, IITs, IIMs and other Centre and state institutions of national importance—that produced graduates and researchers required for a new India. The expansive years beginning in the 1980s saw private participation which made regulatory agencies like UGC, AICTE, NCTE, MCI, etc. gain authority either as statutory or professional bodies. Numerous committees
have made a series of recommendations on the need to overhaul the regulatory ecosystem. There cannot be a time more appropriate than now to embark on this transformative phase. Emerging signals in this direction need a trinocular vision to charter the policy contours. The trinocular vision is again a coincidence with the Holy Trinity—Creation, Protection and Differentiation (read as Destruction).

In my previous article, I had highlighted the need for Higher Education Commission of India to be a coordinated and not an isolated apex body to ensure that it is a game-changer and not UGC’s name-changer. Such an effort can be for three purposes—creation, protection and differentiation. The creation of new institutions and determining norms and standards for different streams of higher education can be the first dimension. The protection of public institutions through financing and private institutions through progressive policy-making is the second. The third is for monitoring and reinforcement mechanisms to ensure quality among public and private institutions through an accreditation system to ensure differentiation and identify good institutions. This shall remove the dismissive stigmatisation of private and the excessive glorification of the public.

The manifestation of the trinity may be in the forms of three central statutory bodies. The first in the lines of Prof Yash Pal, NKC, TSR Subramanian and various other committee recommendations for the purpose of coordinated laying down of norms and standards, and approval for creating institutions. The second, in the form of a Centre-state funding mechanism for academic
and research excellence driven by performance. The third is a neutral third-party accreditation framework to categorise various institutions based on a scientific and empirical method. All the three must have statutory force with participation from all states at decision-making levels to ensure that a concurrent list item like higher education in its policy and implementation mechanism upholds cooperative federalism. In short: Higher education needs a policy trinity for creation, protection and differentiation.

Reader’s Policy suggestion: ____________________________

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Heci shouldn’t be old Wine in new Bottle

Knock, knock. Who’s there? Yash Pal. Yash Pal who? Yash Pal from heaven. Is it the Yash Pal who kindled an interest in science through Doordarshan? Yes. Why are you here? I saw the draft Bill to repeal the UGC Act. Welcome, I hope you are happy with it. I am here to share my views since I was once UGC Chairman ...” and tringg goes my alarm. I woke up in disappointment to realise that the opportunity that I missed in my lifetime, a conversation with the legendary Prof. Yash Pal, was shattered in my dreams too. Shrugging off my disappointment, I pondered for a moment and thanked him for waking me up to the realities of the proposed Higher Education Commission of India (HECI).

The HECI Bill is the Ministry of Human Resource Development’s proposed new Bill to repeal the existing University Grants Commission (UGC) Act of 1956. The Bill provides five foundational principles on which the HECI is assumed to be grounded—less government and more governance, separation of funding, end to inspection raj, academic quality and enforcement powers. Under these five pillars rest long-pending structural reforms in higher education and so, it needs to be welcomed cautiously.

The National Policy of Education (1986) and the Programme of Action (1992) envisaged the creation of a national apex body for greater coordination and integration in our higher education system including
research. This overarching responsibility of the UGC disaggregated into more than a dozen professional statutory councils like MCI, BCI, AICTE, etc., created by Parliament; they are now towers of isolated regulation and control. However, stand-alone disciplines of the past are increasingly converging in contemporary times.

An MBBS graduate prescribing drugs works with engineers on smart nanomaterials, for delivery catalysed by chemical formulations invented by science graduates, their vast public impact measured by sociologists and economists, and with intellectual property of the work protected by lawyers; all of them are working in state-of-the-art facilities built by architects and so on. Such coherent synergy in academic functions needs to be subsumed by a unitary apex body that aggregates all these professional bodies. This was the rationale behind Yash Pal’s committee on Renovation and Rejuvenation of Higher Education (2009) which mooted the grand idea of a National Commission for Higher Education & Research (NCHER) which was also in line with the National Knowledge Commission’s Indian Regulatory Authority for Higher Education (IRAHE, 2006).

Pursuant to these, two review committees were constituted in 2015—one for AICTE headed by former HRD Secretary M K Kaw and the other for UGC headed by its former Chairman Prof. Hari Gautam. Later, the draft report of the TSR Subramaniam committee on National Education Policy (2016), which is still a work in progress under a different committee headed by K Kasturirangan, also kept in mind the middle path of the Kaw Committee and the aggressive path of Hari Gautam committee. Amidst many recommendations, it was
very vocal on the need for a National Higher Education Promotion and Management Act in line with the NCHER or IRAHE.

Repealing the UGC and assigning regulatory, academic, administrative and disciplinary functions minus funding mechanisms under the newly proposed Higher Education Commission may be a good move, but definitely not enough considering that many reforms have not yet been completed. The MHRD of the NDA has put in place certain path-breaking reforms—learning outcome-based school education, four-year integrated teacher education programme, National Institutional Ranking Framework, autonomy to IIMs, new regulatory framework for institutions of excellence (IoE), graded autonomy to universities, and distance education and MOOC, etc. Graded autonomy provides much-needed oxygenation from the current strangulation and still puts universities under the policy safeguards of UGC; the new IoE framework provides unfettered freedom to 20 institutions freeing them from various shackles.

The HECI must be seen in the light of the above. Without going into the merits and demerits of the proposed Bill, it appears that the new proposal is only a partial response to the numerous vociferous calls for an integrated approach to create a statutory and regulatory framework for coordinated development. The parenthesised reference to the repealing of the UGC Act only reinforces this view, as the HECI appears to be a glorified version of UGC at a time when India needs an integrated regulatory framework for its entire higher education.
Regulatory reforms in university education through graded autonomy and IoE, distance education, online education, technical education through model curriculum, vocational education through KAUSHAL, etc., are either yet to be implemented fully or their impact yet to be measured after implementation. There is certainly no hurry in bringing HECI as a UGC substitute at this critical juncture, but we urgently need to frame implementation mechanisms that are a work in progress and pending for want of many regulatory reforms.

For example, the IoE and graded autonomy regulations are yet to uncork the much-awaited academic autonomy. Likewise, the online and distance education regulatory reform is yet to be tested for the disruptive progress it can create. The HECI at best creates a transfer of power from one organisational identity to another with marginal transformation in outcome. The needed statutory insertions can still be made by amending certain provisions of the UGC Act to achieve the desired outcome.

An attempt to replace the UGC should not be through a glorified version of UGC but a comprehensive higher education body that covers various streams—technical, medical, legal, teacher education, etc. This shall align well with the findings of many committees of the past. In short: HECI cannot be old wine in a new bottle, but old wine with new spirits.

Reader’s Policy suggestion: ____________________________
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Welcome the ‘Jobs to be Done’ Theory

Iconic management guru and Harvard Business School Professor Clay Christensen and his co-authors Taddy Hall, Karen Dillon and David Clay in their scholarly book Competing Against Luck: The Story of Innovation and Customer Choice lay down a path-breaking way for organisations to uncork their latest ‘jobs to be done’ theory. Complimenting Clay’s theory of ‘Disruptive Innovation’ which is about competitive response to innovation, the ‘jobs to be done’ theory is about the need for organisations to understand the fact that customers don’t buy a product or service but they hire them to do a job.

His co-authored article for the Harvard Business Review using his colleague and legendary Theodore Levitt’s quote, “People don’t want to buy a quarter-inch drill. They want a quarter-inch hole!” Clay’s corporate examples like Amazon, Intuit, Uber, Airbnb, Chobani yogurt, etc. are exemplary. What magnetically attracted me was the Southern New Hampshire University (SNHU) story.

Education also serves its customers with products and services. Products in the form of degrees and services in the form of training, research, consultancy, etc. The SNHU was lauded by many publications as one of the most innovative colleges in the US. It distinguished its product and service by serving the non-consumption (distance education) customer moving away from the traditional bread and butter model. They knew which side of the bread needs to be buttered or served a new breakfast menu with a laser focus to provide the
students who have hired SNHU.

The core in the ‘jobs to be done’ theory is the idea that customer hire products and services for a specific job to be done and either continue to hire or look for new options. The full batch of graduates or other services that universities and higher education institutions offer fit into this description. Graduates are hired for a specific job and not for their flashy degrees. Services are hired for fit expertise and not for fat research budget or grants. Institutions that begin to understand the evolving ‘jobs to be done’ theory of corporate recruiters, job providers and service consumers are the ones who can differentiate and transform successfully.

Recently, McKinsey’s poll found though 84 percent of global executives reported that innovation was extremely important to their growth strategies, a staggering 94 percent were dissatisfied with their organisations’ innovation path that fell short of ambitions. In higher education, it’s not the falling share of innovation but the falling levels of ambitions that is concerning. There cannot be a time more appropriate than now to demystify the purpose and produce of higher education. All universities cannot be successful in teaching, research, consultancy, skills, distance education, etc. A blinded pathway that provides a roadmap for universities to do all of these will lead to a cul-de-sac.

Universities need to unbundle themselves and be hired for a specific purpose and continuously reinvent or innovate their purpose and delivery mechanism. The ‘jobs to be done’ theory re-brands a university’s purpose—elite university, mass university, niche university, the
local university, lifelong-learning mechanism, etc. The Institute of Public Policy Research that identified these new models have found a new partner endorsing it: Jobs to be done theory.

Reader's Policy suggestion:

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CBSE should move to bits and bytes

Grass in the cemetery will look green and neat but cannot shake anything underneath. But, policy making is not about looking good. It has to also shake the legacy formalities that may have outlived its use and purpose. The current NPA and bad loan crisis hitting the banking industry is so scary, that the school-going children cannot be a victim of another question paper leak involving banks and other key partners in the system. Addressing procedural imperfections with extra-manual intervention is no longer an effective antidote.

The Digital India movement presents a solution to the problem at hand. School Education Secretary Anil Swarup’s tweet on the formation of a high-power committee to examine the process of conduct of CBSE exams comes as a huge relief. He has suggested the use of technology to make exams secure and foolproof. As the MHRD committee submits its report by May 31, here are a few reasonable expectations to ensure that the recommendations defeat the ‘con’mighty forces.

Enviro-Socio-Economic benefit seems to be the triple benefit of using technology as a powerful and positive disrupter in the question paper value chain. The current system of question paper setting, printing, distributing, answer paper collecting, evaluating and results publishing needs a fundamental change and adoption of technology tools. The inherent risk in storage and leakage, the environmental impact due to fuel consumption and felling of trees for printing and above all the loss of face and faith for a powerful brand like CBSE, necessitates an affordable, scalable, secure
and environmental-friendly examination system.

It is estimated that in the current format, 25 per cent of the total exam costs is towards printing and distribution with high risk of forward and reverse distribution logistics. The dependency on multiple stakeholders—some of whom are disconnected from the education eco-system on regular days—makes the system vulnerable. Part-time partners who are exam-day friends and ‘unfriended’ after the exam season must first be eliminated. Employees in banks don’t stay in the same branch forever and every year is a new set of people requiring training and orientation.

The examination chain has three major value activities—question paper setting and distribution, exam administration and evaluation and results publication. The only value activity that has been digitally perfected is the results declaration. It’s difficult to digitise the entire value chain overnight but certainly possible to address them in parts beginning with the first value first. The ideal case would be a question paper authoring engine tool in a highly encrypted environment where question papers are set by different experts to meet multi-modal exam patterns.

It’s however an idea whose time is yet to come. An idea whose time has already come is digital twins. The present question paper setting mechanism can be digitally twinned in a secure question paper distribution from which the question papers can be distributed through a secure online highway that connects CBSE, its regional offices and exam centres in cloud-local server architecture. This online highway can be populated
by devices with multi-layered architecture, defined rights and responsibilities to fix any possible breach or malpractice.

On the day of the exam, the highway allows only authorised people to download relevant question papers to be printed at the exam centre just a few hours before the exam. Even the printing requirement can be minimised if schools can co-create a robust computing infrastructure (will hold this for Phase 2).

In short, CBSE question paper distribution system needs to move brick and mortar to bits and bytes.

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Reader’s Policy suggestion : ________________________
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New policies wipe off many academic tears

When the Berlin Wall was built by East Germany in 1961, it was tellingly visible that it was built to be demolished and not to stay as walls are supposed to prevent unauthorised immigration and cannot prevent people from emigrating from their own territory. This fundamental logic shook the foundational stones of the Berlin Wall in 1990 that resulted in a unified Germany.

Likewise, academic walls built to prevent progressives to emigrate into an orbit of academic excellence are built only to be brought down. Unlike a brick and mortar wall, antiquated academic policies are legacy walls built by rules and regulations. It requires a cerebral effort to bring down the academic wall.

This cerebral effort from Prime Minister Narendra Modi comes from a series of transformational disruptions catalysed by the HRD Minister, of which three in higher education requires immediate three cheers.

The passage of the IIMs Bill highlights the government’s intention to grant administrative, academic and financial autonomy to the Indian Institutes of Management. It demonstrates the genuine intention of the Ministry of HRD to not interfere with the functioning of India’s premier management institutes.

The Institutions of Eminence (IoE) regulations is another example of germinating world class institutions with policy fertilisers. Though the eligibility criteria requires a rethink, the intent of the government to
churn out world class institutions in a period of 10 years is laudable.

As we begin to think that the present form of IoE regulations requires some changes, the MHRD’s alternate solution comes out of the blue through the visionary UGC Graded Autonomy Regulations. Very rarely in the academic circles of policy making has a statutory regulations been notified and consequential action plan put into motion with such speed.

The University Grants Commission (UGC) under its new chairman put in place a system of categorising universities into Category 1 and Category 2, ensured notification of the Graded Autonomy Regulations (GAR) in record time, called for applications and by the time you read this article would have released the list of Category 1 and 2 universities and autonomous colleges.

While the GAR is an attempt to transparently cherry-pick the best from the rest, universities must be mindful of the responsibility that they have to undertake under this new avatar. An avatar is always to eliminate the bad for good and this new avatar under the GAR regime hopefully generates lots of good to a starving higher education eco-system that gets a new life through this landmark policy.

The transformation in the policy thought process has managed to demolish obstructionist walls.

Previously, Indian universities were asked to run a 110-mt hurdle with their hands tied to their back as foreign universities were almost allowed to operate in India
without ensuring a domestic level playing field. This government has demonstrated the confidence in Indian universities to compete globally and has provided the much needed freedom to progress and elevate the status of Indian institutions globally. This shall go a long way in boosting the confidence of Indian institutions and that is why there is no hesitation that these three laudatory policies need to be welcomed with three cheers as they wipe many academic tears.

Reader's Policy suggestion: __________________________

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RISE India needs a new education policy

The legendary Harvard University president Drew Faust in her latest commencement address drew from psychiatrist R D Laing’s observation on the art of noticing, and that the range of our thought and action is limited by what we fail to notice. The sum and substance of her speech was that universities can become transformational change agents only if they are able to produce ‘noticers’. I only wish the committee re-constituted to frame the New Education Policy (NEP) doesn’t fail to notice that policy makers in the past have failed to notice the pressing need for certain transformational changes.

In The New Indian Express’s recently concluded ThinkEdu, I moderated the first session titled ‘What Should India’s New Education Policy be?’. The theme of ThinkEdu was Research, Innovation, Skills & Entrepreneurship (RISE) in Education and I limited my thoughts to RISE.

In the recently released Global Innovation Index rankings jointly done by Cornell University, INSEAD and World Intellectual Property Organisation (WIPO), India moved from its previous ranking of 66 to 60 to make it into the top 50 per cent of global economies. Not only is the country’s rise notable and rapid globally but it also puts India atop amongst central and southern Asian nations. The Indian rise from 2015 after five years of decline is etched with India’s outperforming score of its innovation relative to its per-capita GDP. The report also records that innovations happening at grass-root levels
are not captured enough for global rankings purpose.

The next logical step after innovation is to engage in meaningful research. Innovative ideas fail to create the disruption that it is capable of due to lack of coherent synergy in research. World renowned creative and innovation company IDEO defines innovation as the convergence of human desirability, technical feasibility and business viability. The convergence spot for these three can be identified through collaborative research which is not dominating Indian academia. Individual research universities in their ivory towers of research excellence are either disconnected from each other or try to do everything themselves. The need for innovation-driven research is the coming together of leading institutions of technology, business, social sciences, medicine, etc. to engage in collaborative research leading to the desired convergence.

Prime Minister Narendra Modi’s recent launch of Future Skills platform blends well with this government’s Skill India initiative. There are many functional and practising skills dominating rural India that are outside the formal school of thoughts, old or new. They need to be captured in making the old-no-new schools of thoughts a transformational skill agent for Skill India.

The recently released Global Entrepreneurship Monitor of London Business School puts India in the top 10 in many indictors of entrepreneurial advancements and points the need for focus in entrepreneurship programmes and post-school entrepreneurial education. However, the 2016 Global University Entrepreneurial Spirit Students’ Survey (GUESSS) by St Gallen University covering
1.22 lakh students from 1,000 universities across 50 countries ranks India number one in the incidence of nascent entrepreneurship. The New Education Policy needs to address many such transformational changes. RISE India needs a NICE New Education Policy.

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Reader’s Policy suggestion:__________________________
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AICTE needs to better its understanding

In a recipe for vegetable peas pulav, the instructions were very clear to boil the vegetables and peas separately, prepare spices separately and finally mix them with boiled rice for a good balance in taste and texture. However, a chef in a hurry ended up doing the entire process together—boiling and preparing all ingredients together. Result: vegetable peas pulav becomes 'vegetopple pieces pulav' putting the dinner in disarray.

Similar policy disarray in the case of the deemed universities should not happen. While the Supreme Court's November 3, 2017, order in Orissa Lift Irrigation Corporation Ltd v/s Rabi Sankar Patro is tested for its per incuriam before appropriate courts, in a fresh round of litigation, the policy makers are obligated to implement the SC order in parts after understanding the whole—instead of misunderstanding the parts and implementing the whole.

The present SC order did not have the benefit of the Constitution bench order in Azeez Basha v/s Union of India in (1968 SCR (1) 833) in an issue concerning Aligarh Muslim University. SC's 1968 interpretation of the word 'established' along with Section 22 and 23 of the UGC Act, is: by harmonious construct an institution which once was not empowered to award degrees recognised by the Central Government and then established under a Central Act (UGC Act, in the case of deemed universities) so that its degrees are recognised.
Consequentially, the fact that deemed university degrees are recognised by the government under Section 22 of the UGC Act makes it a university established under a Central Act, and so for the purposes of Section 23 of the UGC Act it can use the word University and needs to be considered.

However, more important is the issue of approval from AICTE. The SC order also held that 1994 AICTE Regulations are applicable for deemed universities and this has to be interpreted from the mood and language expressed and used by the SC. The SC while framing the two questions for consideration was clear that the issue was with regard to engineering degrees in distance mode and the competency of Distance Education Council (DEC) over AICTE (Para 35 of order).

While answering these two, the SC was of the opinion that there could be two categories of Deemed to be Universities. The first is, it has a status for excellence in a field of technological subject and wants to introduce a course like robotics or nano-technology.

The second was: a university which was conferred such status for excellence in subjects which are completely unrelated in which new courses are sought to be introduced. While the institution would teach finance and music, yet could it introduce engineering courses on the strength of the proposition laid down in Bharathidasan? Thus, the court also confined its decision to the second category of Deemed to be Universities.

In 2016, the MHRD and UGC both rightly stated that Deemed Universities need not obtain prior approval
from AICTE for starting any professional or allied courses covered by the AICTE Act. Understanding the SC order in its whole, the AICTE needs to implement its policy decision in parts and not vice versa. AICTE approval for deemed universities is not necessary for those technical institutions which the AICTE independently recommended for conferment of Deemed University status before UGC’s independent recommendation.

AICTE’s sudden retrograde inclusion of such deemed universities is a faulty understanding of the SC order in parts and a hasty implementation of its approval process in whole. In short: AICTE needs to understand whole and implement parts and not the vice versa.

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Reader’s Policy suggestion: ________________________________

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Nip & tuck that can mend education in TN

Expert Weighs In On Five Aspects That Can Streamline Entrance Exams, Introduce Quality Learning & End Commercialisation Of Education.

We enter 2018 with a baggage — Mcdonaldisation of IITs, IIMs and CFTIs, strangulation of deemed universities, commoditisation of entrance exams and admissions, taxation of auxiliary education services, trivialisation of teaching profession, discrimination among institutions and malnutrition in policy making are a few to name. This is reflected in the rush for school admissions, postadmission pressure for school students chasing marks in all exams, mindless mechanisms for professional college admissions, dwindling respect for teachers, ivory-tower elitism of premier institutions and challenging employment options among others.

The art of public policy is to ensure a smooth interface that recognises the coherent synergy of different stakeholders who contribute to education in significantly different measure. Stereotypes and rhetoric have no place in public policy discourse as an enlightened public expects at least five transformational changes in the education sector in 2018:

Reintroducing learning in rural schools

My good friend Prof R Vaidyanathan used to say that every wife wants her kids to be more intelligent than her husband and hence puts them in the best of the schools. The Right to Education Act guarantees free and compulsory schooling for children till the age of 14 resulting in children successfully completing elementary
schooling. Enrolment through entitlement is necessary but not sufficient for enlightenment on elevation. The Aser 2016 report found that 25% of Class VIII students in rural India were unable to read a Class II-level text and a third were unable to solve a threedigit by one-digit division sum. Mere elevation in grade and completion of high school guarantees schooling but not learning.

Solution: Need outcome based threeyear realistic budget allocation than ritualistic annual budget allocation

Capitation antidote for engineering colleges

Admission to professional colleges, both medical and engineering institutions, are infested with ivory tower isolation at top, collusive cash-cows in the middle and meaningless enrollment at the bottom. The ivory tower JEE-Advanced possibly ignores the fact that almost 90% of the students are anyway amongst the toppers in the JEE-Main. Why then a separate JEE-Advanced is a question eternally begging for an obvious answer? One of the main reasons for JEE-Maincum-Advanced entrance exams, was to curtail the estimated ?24,000 crore coaching industry. But, it has only further accelerated its growth by ignoring the school exam scores. In addition, private universities (including deemed universities) have their own revenue spinners aka entrance exams.

Estimates put the annual black money generation through capitation fee till the pre-NEET period at ?6,000 crore. While NEET has arrested this to a large extent in medical admissions, engineering colleges require a capitation antidote. The National Testing Agency must go one step forward and administer an online national admissions portal with unique identity for each institution/state. Students need to apply for admission
to as many institutions based on JEE Main and high school scores at a pre-determined weightage. Such a transparent admission portal with digital payment solutions will ensure that merit is not compromised and no fees other than the notified amount is collected. Submission of annual admission returns will detect any deviation either in merit or payment pattern and erring institutions need to be hauled for punitive action.

Solution: Nationalise JEE to eradicate capitation fee

Producing bright teachers

Though the present policy of a four-year integrated teacher education programme is visionary, it needs initial policy fuel to attract a large number of bright students after high-school education. Currently, the choice of teacher education programmes is done almost by those who have failed exploring alternate options. To attract top quality recruits, the central and state governments must provide full funding to the top 10,000 students of the proposed national level test for teacher education programmes to pursue the four-year integrated BEd programme. These students should also be committed towards work in government schools for a minimum of five years. This scheme must be operational for five years and the number can be further increased by encouraging accelerated tax incentives for corporate donors to this scheme.

Solution: Incentivise to intellectualise teacher education

Promoting collaborative research

A challenging approach is essential for research funding in universities and higher education institutions. The current system of research funding is biased
towards IITs and other premier public institutions while despite capacity, progressive private institutions are marginalised. There are geo-political and socio-economic problems of gargantuan proportions in critical sectors like water, health, sanitation, energy, security and defence and need research and development. The current cherrypicking approach of research funding has resulted in successful solutions as an exception only as the majority has failed to be translational. Cherrypicking needs to be replaced by disaggregated crowd-sourcing. A grand challenge in each area needs to be identified and solutions broken into small research deliverables to be done by more than one research institutions. A lead institution based on their strengths under which a group of institutions should collaboratively work to solve each grand challenge. Mere chestbeating that only IITs and CFTIs can do research will result only in marginal output and drive down research productivity measured in terms of successful solutions.

Solution: Collaboratively connecting dots to the finishing line:

Ushering in new policies

Tweaking the iconic public policy visionary, Nani A Palkhivala’s words a little, public policy space is occupied by a five-year government in a four-year action time with three-year period for bureaucrats guided by two-year committees’ recommendations with one-year extension with a hope that daily problems are solved by citizens themselves. Higher education is no exception to this. Introducing the much expected New Education Policy, universalisation of minority rights as per Justice P B Gajendrakadkar’s suggestion, freeing progressive
higher and school educational institutions from the regimental regulatory shackles, non-discrimination amongst educational institutions and restoration of pride in teaching profession are some of the ideal gifts that 2018 can give.

Solution: The desired education policy gifts need to be arranged, packed and delivered before the mood shifts to populist electoral policies. Is anybody listening?

Reader's Policy suggestion: ____________________________

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Next step in higher education: Single-entrance-fits-all exam

All through May and June adding to the preparatory stress of students is the schedule of entrance exams held across the country. It involves careful planning and booking of limited tickets to appear for the limitless tests for professional college admissions. This multiplicity exam syndrome needs to be fixed to avoid student distress and expenses. Can the entrance exam archipelago be broken to create a smooth system that is student-friendly? Yes, here is how, with a little bit of history.

In the US, the evolution of college entrance examination is but more than a 100-year-old germination that stands today as an agent of change. The College Entrance Examination Board was conceptualized in Columbia University in 1900 under legendary Harvard University president Charles Eliot. The present ‘entrance exam anarchy’ we see in India was termed ‘education anarchy’ in the early 1900s where each post-secondary institution had its own entrance exam. Eliot’s common college admission entrance exam was branded elitist in the pre-world war era. However, through a series of post-world war reforms and an evolutionary process of continuous change, the college board continues its research and advocacy on behalf of students, educators and schools. Initiatives like the EQUITY 2000 and Pacesetter & Transition 2000 aim to address the multiple school boards and other institutional factors.

In India, the concept has seen various policy and process
changes to accommodate varying degrees of diversity across different states. Some have a purist entrance exam approach, some a mixed-method entrance and school marks and some like Tamil Nadu have only school exams for professional college exams.

NEET changed the system of medical college admissions with many states not being able to adjust to the velocity with which it struck. To ensure a harmonious construct, the National Testing Agency (NTA), as envisaged by the National Education Policy of 1984, was established as an autonomous body in 2018 and now administers JEE, NET, NEET, CMAT, GPAT and more. This national entrance exam asset, when fully operational, aims to develop, administer and assess about 150 lakh candidates annually across the country and abroad, covering more than 500 cities and 5,000 test centres. This is a huge task that needs to ensure that all sections of society are touched, accommodating different state needs.

As much there is no need to overemphasise the need for national entrance exams there is a need to understand each state’s local conditions — academic and social. The NTA needs to create a strategic plan through consultative mechanisms to ensure all stakeholders — state governments, statutory bodies, civic societies, students and parents are taken into confidence to address concerns.

The first issue is reducing the multiplicity of entrance exams especially by private institutions who set application deadlines to oxygenate their revenue lifelines. To begin, tests like JEE can be made mandatory for deemed universities which seem to be creating the maximum ‘multiplier effect’ in student and parental
stress—physical, mental and financial. When a single exam is being conducted, it is essential to accommodate a substantial regional/state specific content in national tests to ensure there is equitable participation by students from diverse backgrounds. For instance, the American College Board continuously evolves to ensure an inclusive participation to make the college admission system fair to everybody without ivory tower elitism.

Fundamental questions need to be raised on the need for JEE (Advanced), capitation fee, entrance exams becoming more elitist and affordability of access.

All of this takes time and college entrance exam reform is no child’s play nor an overnight remedy. It took more than 150 years for the US to wriggle out of its problems and it still has new problems due to rapid changes in the socio-demographic and educational ecosystem. The latest news that rocked the establishment was the admissions scam in top US universities that Operation Varsity Blues exposed in March.

The story in India is no different but can definitely be differentiated positively by taking progressive steps to achieve equity and excellence concurrently. The easiest way to begin is by making JEE (Main) and its equivalents mandatory for deemed universities. Will NTA 2.0 do it? It’s a worthy wait.

Reader’s Policy suggestion: __________________________
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We understand that you are a deemed university. But when will you become a university? This question from one of our foreign university collaborators still rings in my ears. It was quite a task to explain the complicated birth of the concept of deemed universities conceived by Sarvepalli Radhakrishnan in the The First Education Commission report. The report recommended the government to evolve a method to create university charters similar to other countries. Thus was born the concept of deemed universities under Section 3 of the UGC Act, 1956. But over the years, the etymological nomenclature of deemed universities has fallen victim to the double barrelled shot — one from the Supreme Court and another from the policy makers.

The issue in hand is the use of the word ‘university’ by deemed universities. In 1984, this was discussed by a threejudge bench of the Supreme Court in Premchand Jain Vs R K Chabra in which the court left it to the Centre to interpret or amend, if necessary Section 23 of the UGC Act. The SC observed “...It is for the Central Government to consider whether an institution covered under Section 3 of the Act would not satisfy the provisions of Section 23 of the Act...”. Following this, the Ministry of Human Resources Development (MHRD) directed the UGC to form a committee, comprising MHRD secretary, chairman of UGC and AICTE, which recommended that since deemed universities are public
universities established by an executive charter, they can use the word ‘university’. The MHRD presented the observations in the Lok Sabha in December 2006 and deemed universities began using it. There was no doubt about a deemed university under Section 2(f), Section 3, Section 22 and Section 23.

Just as when the matter was laid to rest, on November 3, 2017 a two-judge bench of the Supreme Court in Orissa Lift Irrigation Vs Sri Rabi Sankar Patro delivered an order on the validity of engineering degrees issued in distance mode by four deemed universities. These four deemed universities were not originally technical institutions and engineering was not their field of specialization. But they were awarding BE and BTech degrees under open distance learning mode through off-campus study centres without approval of AICTE. So the primary question which arose was whether these institutions were within their rights to do so in the absence of specific AICTE guidelines for offering engineering degrees in distance education mode.

But instead of pulling up the erring authorities by holding that engineering degrees in distance education mode without approval of AICTE is invalid, the SC gave a blanket observation disallowing 120 plus deemed universities in the country from using the tag ‘university’. The result — a 63-year-old concept is still struggling to be named properly.

The solution to the nomenclature issue lies in the ‘punar janma’ for these educational institutions which are ‘poorna vidyapeeth’. The compositeness of institutions come from their empowerment to offer degrees as notified under Section 22 of the UGC Act, policy confusion
and judicial complication have led to the undermining of these institutions.

The 2017 SC order did not have the benefit of the settled issue of law in similar matters by a Constitution bench in 1968. This was because the senior counsels advanced arguments concerning validity of distance education engineering degree only. A Constitution bench of the Supreme Court in Azeez Basha vs Union of India in 1968 took up the issue concerning Aligarh Muslim University and defined the word “established” in so far as universities are concerned, along with the need to establish a university under a central/state law. Tracing the etymology and meaning from the Bouvier’s Law Dictionary, Oxford & Webster English Dictionary, the SC clarified “established” meant bringing into existence. Clearly meaning that deemed universities brought into existence through Section 3 of the UGC Act are also established through an executive charter.

These observations along with the SC’s 1968 and 1984 interpretation of the word established in the context of deemed universities along with the UGC Act need a proper legal and policy perspective. It is by harmonious construct that an institution which once was not empowered to award degrees recognized by the central government is established under a central act (UGC, in case of deemed universities). The fact that deemed university degrees are recognized by the government under Section 22 of the UGC Act makes it a university established under a central act for the purposes of Section 23 of the UGC Act. The two judge bench of the SC in 2017 did not accept this proposition despite precedence in three and five-judge bench orders on similar issues.
To put to rest the ongoing issue of nomenclature, either a review and clarification by the Supreme Court of the November 2017 order, that it is applicable to only those deemed universities that were not technical institutions or an amendment of the UGC Act of 1956 seem to be the only options. A rebirth (punar janma) with a new name is what these poorna vidyapeeths (deemed universities) needs.

Reader’s Policy suggestion: ____________________________
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Research output of Indian institutions during 2011–2016: quality and quantity perspective

SCHOLARLY research output in terms of publication in journals is continuously used as an indicator by various funding agencies in the country as well as by the University Grants Commission to compute the academic performance index (API) for faculty recruitment and promotion. To improve the API scores, some faculty have started their own journals for increasing the publication output. It has been reported that about 27% of the publishers of the fake journals and 42% of the fake singlejournal publishers are based in India. Over a period of time, more importance has been given to the number of publications and analysis of research output has also been based on the quantity. Hence the quantity has taken over the quality aspects in measuring the scholarly output of institutions.

The scientometric profiles of Indian institutions based on publication output, as reflected in the Science Citation Index (SCI) and Indian Science Abstracts (ISA), have been reported. A scientometric study revealed that 29 institutions contributed to 45% of all publications from India in SCI journals in 1997. Another analysis carried out on the publication output of Indian institutions during 2006 in journals abstracted in ISA revealed that the universities, colleges, state Agricultural Universities and medical institutions contributed to more than 70% of the country’s publication output. In terms of the number
of publications, top 50 institutions contributed to 25% of India’s publication output and more than 3380 other institutions contributed to the remaining 75% (ref. 5). The authors concluded that Scopus and Web of Science (WoS) could be used along with ISA for assessment of publication output5. Prathap and Gupta6 ranked the Indian engineering and technological institutions based on their publication performance during 1998–2008 computed using p-index, a function of the number of citations and number of publications.

A composite index containing total number of papers, number of citations, highly cited papers and number of papers with international collaborations has also been proposed in the literature7. The Central Universities in India were ranked based on the composite index calculated for the period 2010–2014. University of Delhi and Banaras Hindu University (BHU), Varanasi emerged as the top-ranked Central Universities7.

Databases such as Scopus, WoS, Google Scholar, etc. provide information about articles, authors, citations, institutions and countries. Some of the common parameters that are used to evaluate the performance of the faculty or institutions are the number of publications, impact factor, citations and h-index. These parameters suffer from the following limitations while considering them for assessment of the performance of faculty: (i) impact factor of science journals is higher when compared to those of engineering, social sciences and humanities journals; (ii) the number of citations can be polarized through a few highly cited articles, and (iii) h-index (Table 1) does not take into account the age of the publications, thus favouring older publications whose citations accumulate with time. While
<table>
<thead>
<tr>
<th>Subject area</th>
<th>Total number of publications from all countries</th>
<th>Total number of publications from India</th>
<th>National percentage in the subject area</th>
<th>Minimum number of publications from Indian institutions required for analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and biological sciences</td>
<td>1,229,433</td>
<td>58,161</td>
<td>4.9</td>
<td>88</td>
</tr>
<tr>
<td>Biochemistry, genetics and molecular biology (BGM)</td>
<td>1,885,544</td>
<td>88,330</td>
<td>7.4</td>
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<tr>
<td>Chemical engineering</td>
<td>695,280</td>
<td>46,318</td>
<td>3.9</td>
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<tr>
<td>Chemistry</td>
<td>1,328,548</td>
<td>92,346</td>
<td>7.8</td>
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<tr>
<td>Computer science</td>
<td>1,868,591</td>
<td>107,052</td>
<td>9.0</td>
<td>162</td>
</tr>
<tr>
<td>Earth and planetary sciences</td>
<td>681,225</td>
<td>24,579</td>
<td>2.1</td>
<td>38</td>
</tr>
<tr>
<td>Energy</td>
<td>514,738</td>
<td>26,644</td>
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<tr>
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<td>40,082</td>
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<tr>
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<td>1,418,179</td>
<td>25,372</td>
<td>2.1</td>
<td>38</td>
</tr>
</tbody>
</table>
considering the performance of the institutions based on the above parameters, the number of publications is not normalized to the number of faculty in the institutions and the h-index does not take into account the age of the institutions. An institution with higher faculty strength is naturally expected to have higher publication productivity and hence the absolute number of publications cannot be used as a basis of comparison of different sized institutions. This has been accounted in the National Institutional Ranking Framework (NIRF) of the Ministry of Human Resource Development (MHRD), Government of India, and hence the publication output is normalized on the basis of the number of publications per faculty. Also, h-index of an institution is based on the number of cited papers and does not account for the age of the publication. Hence, this gives rise to older institutions (>40 years) having higher h-index when compared to newer institutions (<25 years), though the research productivity is low for some of the older institutions in the recent times. As the absolute number of publications and their corresponding citations along with h-index do not provide information on the quality of publications, we have used SciVal (a product of Elsevier) to determine the quality of publications.

SciVal is a bibliometric tool to assess the research performance of individuals, institutions and countries with data taken from Scopus. Using SciVal, it is possible to analyse the research performance of countries and benchmark institutions relative to their peers and obtain insights into the research trends across 7500 institutions in 220 nations.

In this study, we have used output in top citation percentile to evaluate the performance of institutions in
the country. The output in top 10 percentile indicates the extent of an institution’s publication within the top 10 percentile of most cited papers. In addition, the output in top 10 percentile (of cited papers) can be used to benchmark institutions based on their contribution to the most influential and highly cited publications. This parameter serves to distinguish the performance of organizations that have similar publication output, citations per paper and h-index on the basis of contribution to highly cited articles.

Methodology

The output in the top 10 percentile was considered for the period 2011–2016 (6-year period) for analysing the scholarly performance of Indian institutions and laboratories. The period of study was chosen to reflect the performance of Indian institutions in the most recent past, and a significant number of scientometric reports are available for different subject areas for other periods. The output in the top 10 percentile was obtained for 15 different fields (Table 1). The national percentage in the subject area (Table 1) indicates the percentage of the country’s total publications in the specified subject area. For instance, 4.9% of India’s total publications during the period 2011–2016 was in the subject area of agriculture and biological sciences as revealed by SciVal. A total of 365 institutions were listed in a SciVal search for publication output from India during 2011–2016. The analysis of total research publications was limited to institutions that published at least an average of 300 papers per year during the 6-year period (minimum total publications of 1800 for the 6-year period) and had output in top 10 percentile greater than the national average of 9%, as obtained.
from SciVal for the period of study. With respect to subject-wise analysis, institutions were filtered based on the number of publications calculated as the product of national percentage in the respective subject areas and the minimum threshold number of publication (1800) by an institution for the period. Accordingly, Table 1 gives the minimum number of publications in each area for the period 2011–2016 required for an institution to be included in the analysis.

Results

During the period 2011–2016, 789,089 papers have been published by India and the global publication output was 23,459,397. More than 65% of total research publications with Indian affiliations was from seven subject areas – medicine, engineering, computer science, physics and astronomy, chemistry, biochemistry and materials science. This observation is reasonably in good agreement with the findings of Prathap13 that the publications of major Indian institutions are in the fields of physical sciences and engineering, with no substantial contributions in social sciences, arts and humanities. Out of the 365 Indian institutions listed in SciVal for the 6-year period, 51 had at least 1800 papers with output in top 10 percentile greater than the national average of 9%. Of these 51 institutions, there are only 3 private deemed universities, namely BITS Pilani, Thapar University and SASTRA University (Table 2).

Subject-wise analysis

The following sections provide a detailed analysis of the publications in the seven main subject areas along with the list of contributing institutions in the corresponding areas. Field weighted citation index (FWCI) compares
the citation of an institution’s publication with those of similar publications in the data universe. Hence, FWCI has also been included in the analysis of publications in the seven main subject areas. The global average output in the top 10 percentile and global FWCI have also been taken for these 7 main subject areas for comparison.

Medicine

In the subject area of medicine, a total of 157,610 papers were published during the period 2011–2016 and the national average output in top 10 percentile was 8.7%, with FWCI of 0.74. India’s contribution to the total publications in this subject area during the period was 3.18%. Forty-eight Indian institutions had at least 238 publications during this period and their outputs in top 10 percentile were greater than the national average of 8.7% (Table 3). Of these 48 institutions (41 public funded and 7 private), 44 had FWCI greater than the national average of 0.74, and 32 institutions had FWCI greater or equal than the global average of 1.03. The global average output in top 10 percentile for this subject was 14.2%. Only 31 institutions (shown in bold in Table 3) had both output in top 10 percentile and FWCI equal to or greater than the global average.

Engineering

In engineering, a total of 147,449 papers were published during 2011–2016 and the national average output in top 10 percentile was 7.9%, with FWCI of 0.84. The global average output in top 10 percentile was 7.6%, closer to the national average. India contributed to an extent of 4.63% of global publications in this subject area. Forty Indian institutions had output in top 10 percentile greater than the national average (Table 3).
Of these 40 institutions, 25 (shown in bold face in Table 3) had FWCI greater than the global average of 0.99.

Computer science

In computer science, a total of 107,052 papers were published during 2011–2016 and the national average output in top 10 percentile was 3.2%. Thirty-one institutions (25 public and 6 private; Table 3) had output in top 10 percentile greater than the national average, and only 12 (10 public and 2 private) had output in the top 10 percentile greater than the global average (5.6%). Of these 31 institutions, only Jadavpur University had FWCI equal to the global average of 1.05. India’s contribution to total publications was 5.73% and national FWCI was 0.69.

Physics and astronomy

In physics and astronomy, a total of 92,804 papers were published during 2011–2016 in India. The national average output in top 10 percentile and FWCI were 13.1% and 0.92 respectively. Thirty-eight institutions (31 public and 7 private; Table 3) published more than 116 papers in this subject in the last six years and had greater than 13.1% as output in top 10 percentile. The global FWCI was 1.05 and only 22 institutions (shown in bold face in Table 3) had both FWCI greater than the global FWCI and output in top 10 percentile greater than the global average (13%). Among these institutions, 19 are public funded and 3 are private institutions.

Chemistry

In chemistry, a total of 92,346 papers were published during 2011–2016 and the national average output in top 10 percentile was 19.4%. Forty institutions had
Table 2. Indian institutions with average annual publication output greater than 300 per year and having an output in top 10 percentile greater than the national average of 9.0%.

<table>
<thead>
<tr>
<th>Institution</th>
<th>No. of publications during 2011–2016</th>
<th>Output in top 10 percentile (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian Association for the Cultivation of Science, Kolkata</td>
<td>2,898</td>
<td>26.3</td>
</tr>
<tr>
<td>Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru</td>
<td>2,045</td>
<td>25.5</td>
</tr>
<tr>
<td>Saha Institute of Nuclear Physics, Kolkata</td>
<td>2,680</td>
<td>24.1</td>
</tr>
<tr>
<td>Indian Institute of Chemical Technology, Hyderabad</td>
<td>11,946</td>
<td>23.4</td>
</tr>
<tr>
<td>Tata Institute of Fundamental Research, Mumbai</td>
<td>5,737</td>
<td>21.9</td>
</tr>
<tr>
<td>Panjab University, Chandigarh</td>
<td>5,514</td>
<td>21.1</td>
</tr>
<tr>
<td>Visva-Bharati University, Santiniketan</td>
<td>1,831</td>
<td>21.0</td>
</tr>
<tr>
<td>Shivaji University, Kolhapur</td>
<td>1,928</td>
<td>20.4</td>
</tr>
<tr>
<td>Tezpur University, Tezpur</td>
<td>1,981</td>
<td>17.5</td>
</tr>
<tr>
<td>Guru Nanak Dev University, Amritsar</td>
<td>2,383</td>
<td>16.2</td>
</tr>
<tr>
<td>Madurai Kamaraj University, Madurai</td>
<td>2,336</td>
<td>16.1</td>
</tr>
<tr>
<td>University of Mumbai, Mumbai</td>
<td>3,828</td>
<td>15.6</td>
</tr>
<tr>
<td>Indian Institute of Technology, Guwahati</td>
<td>5,352</td>
<td>15.4</td>
</tr>
<tr>
<td>Indian Institute of Science, Bengaluru</td>
<td>14,593</td>
<td>15.1</td>
</tr>
<tr>
<td>Indian Institute of Technology, Roorkee</td>
<td>7,579</td>
<td>14.6</td>
</tr>
<tr>
<td>University of Delhi, New Delhi</td>
<td>11,964</td>
<td>14.6</td>
</tr>
<tr>
<td>University of Hyderabad, Hyderabad</td>
<td>4,180</td>
<td>14.3</td>
</tr>
<tr>
<td>Banaras Hindu University, Varanasi</td>
<td>9,111</td>
<td>14.1</td>
</tr>
<tr>
<td>Bharathiar University, Coimbatore</td>
<td>3,621</td>
<td>14.1</td>
</tr>
<tr>
<td>Indian School of Mines University, Dhanbad</td>
<td>3,216</td>
<td>14.1</td>
</tr>
<tr>
<td>Indian Institute of Technology, Mumbai</td>
<td>9,657</td>
<td>14.0</td>
</tr>
<tr>
<td>Bharathidasan University, Tiruchirappalli</td>
<td>2,390</td>
<td>13.9</td>
</tr>
<tr>
<td>Jamia Hamdard University, New Delhi</td>
<td>2,335</td>
<td>13.9</td>
</tr>
<tr>
<td>Indian Institute of Technology, Kanpur</td>
<td>7,069</td>
<td>13.7</td>
</tr>
<tr>
<td>Indian Institute of Technology, Kharagpur</td>
<td>10,470</td>
<td>13.7</td>
</tr>
<tr>
<td>Jamia Millia Islamia, New Delhi</td>
<td>2,907</td>
<td>13.5</td>
</tr>
<tr>
<td>Aligarh Muslim University, Aligarh</td>
<td>5,880</td>
<td>13.4</td>
</tr>
<tr>
<td>National Institute of Technology, Tiruchirappalli</td>
<td>3,177</td>
<td>13.3</td>
</tr>
<tr>
<td>Indian Institute of Technology, New Delhi</td>
<td>9,813</td>
<td>13.2</td>
</tr>
<tr>
<td>University of Allahabad, Allahabad</td>
<td>2,077</td>
<td>12.9</td>
</tr>
<tr>
<td>University of Rajasthan, Jaipur</td>
<td>2,034</td>
<td>12.8</td>
</tr>
<tr>
<td>Birla Institute of Technology and Science (BITS), Pilani (P)</td>
<td>3,002</td>
<td>12.7</td>
</tr>
<tr>
<td>Indian Institute of Technology, Chennai</td>
<td>9,189</td>
<td>12.3</td>
</tr>
<tr>
<td>University of Madras, Chennai</td>
<td>3,346</td>
<td>12.1</td>
</tr>
<tr>
<td>University of Pune, Pune</td>
<td>3,171</td>
<td>12.1</td>
</tr>
<tr>
<td>University of Lucknow, Lucknow</td>
<td>2,013</td>
<td>12.0</td>
</tr>
<tr>
<td>University of Calcutta, Kolkata</td>
<td>5,872</td>
<td>11.9</td>
</tr>
<tr>
<td>National Institute of Technology, Rourkela</td>
<td>3,628</td>
<td>11.4</td>
</tr>
<tr>
<td>Jadavpur University, Kolkata</td>
<td>8,954</td>
<td>11.3</td>
</tr>
<tr>
<td>Jawaharlal Nehru University, New Delhi</td>
<td>4,003</td>
<td>11.1</td>
</tr>
<tr>
<td>University of Burdwan, Bardhaman</td>
<td>1,903</td>
<td>11.0</td>
</tr>
<tr>
<td>Sri Venkateswara University, Tirupati</td>
<td>2,704</td>
<td>10.8</td>
</tr>
<tr>
<td>Thapar University, Patiala (P)</td>
<td>2,959</td>
<td>10.5</td>
</tr>
<tr>
<td>M.S. University of Baroda, Vadodara</td>
<td>1,983</td>
<td>9.6</td>
</tr>
<tr>
<td>Annamalai University, Chidambaram</td>
<td>5,313</td>
<td>9.5</td>
</tr>
<tr>
<td>Pondicherry University, Pondicherry</td>
<td>3,676</td>
<td>9.5</td>
</tr>
<tr>
<td>National Institute of Technology, Durgapur</td>
<td>2,114</td>
<td>9.2</td>
</tr>
<tr>
<td>Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow</td>
<td>2,641</td>
<td>9.2</td>
</tr>
<tr>
<td>University of Kalyani, Kalyani</td>
<td>1,810</td>
<td>9.2</td>
</tr>
<tr>
<td>Christian Medical College, Vellore</td>
<td>3,219</td>
<td>9.1</td>
</tr>
<tr>
<td>SASTRA University, Thanjavur (P)</td>
<td>4,499</td>
<td>9.1</td>
</tr>
</tbody>
</table>

P, Private deemed university.
10 percentile greater than the national average of 19.4%. Of these 40 institutions, 33 had FWCI greater than or equal to the global average of 1.05. Twenty-five institutions (23 public and 2 private, shown in bold in Table 3) had both output in top 10 percentile and FWCI greater than the global averages (23.2% and 1.05 respectively). The national FWCI during this period was 0.99.

Biochemistry, genetics and molecular biology

In biochemistry, genetics and molecular biology, a total of 88,330 papers were published during 2011–2016, with the national average of output in top 10 percentile and FWCI being 13.5% and 0.75 respectively. The number of institutions with a minimum of 133 publications in this Table 3.
Table 3. Indian institutions with publication output greater than or equal to the minimum number of publications required (as shown in Table 1) and output in top 10 percentile greater than the national average. Data are tabulated subject-wise. The field weight citation index (FWCI) of these institutions is also shown subject-wise, wherever applicable

<table>
<thead>
<tr>
<th>Institution</th>
<th>Medicine (FWCI)</th>
<th>Engineering (FWCI)</th>
<th>science (FWCI)</th>
<th>astronomy (FWCI)</th>
<th>Chemistry (FWCI)</th>
<th>BGM science (FWCI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Pune, Pune</td>
<td>21.2 (1.20)</td>
<td>10.2 (1.16)</td>
<td>4.5 (0.98)</td>
<td>14.0 (1.04)</td>
<td>28.7 (1.38)</td>
<td>20.3 (1.01)</td>
</tr>
<tr>
<td>Shivaji University, Kolhapur</td>
<td>22.8 (1.52)</td>
<td>12.5 (1.25)</td>
<td>7.4 (0.96)</td>
<td>16.3 (1.34)</td>
<td>30.2 (1.62)</td>
<td>19.5 (1.04)</td>
</tr>
<tr>
<td>Indian Institute of Technology, Bombay</td>
<td>21.1 (1.23)</td>
<td>9.1 (0.84)</td>
<td>4.4 (0.83)</td>
<td>16.5 (1.20)</td>
<td>26.3 (1.20)</td>
<td>20.7 (1.03)</td>
</tr>
<tr>
<td>Indian Institute of Technology, New Delhi</td>
<td>18.6 (1.21)</td>
<td>13.1 (1.21)</td>
<td>7.9 (0.93)</td>
<td>13.2 (0.98)</td>
<td>23.1 (1.16)</td>
<td>17.1 (0.98)</td>
</tr>
<tr>
<td>Indian Institute of Technology, Gauhati</td>
<td>23.8 (1.50)</td>
<td>9.8 (0.93)</td>
<td>4.3 (0.63)</td>
<td>18.1 (1.15)</td>
<td>29.9 (1.37)</td>
<td>21.5 (1.04)</td>
</tr>
<tr>
<td>University of Delhi, New Delhi</td>
<td>12.5 (0.87)</td>
<td>10.9 (0.97)</td>
<td>4.0 (0.77)</td>
<td>23.3 (1.49)</td>
<td>26.4 (1.15)</td>
<td>19.2 (0.94)</td>
</tr>
<tr>
<td>Bharathiar University, Coimbatore</td>
<td>22.6 (2.07)</td>
<td>10.9 (0.78)</td>
<td>9.3 (0.93)</td>
<td>14.8 (0.89)</td>
<td>22.1 (1.22)</td>
<td>20.8 (1.16)</td>
</tr>
<tr>
<td>Guru Nanak Dev University, Amritsar</td>
<td>18.8 (1.12)</td>
<td>16.2 (1.01)</td>
<td>–</td>
<td>15.2 (0.88)</td>
<td>28.5 (1.30)</td>
<td>21.0 (1.08)</td>
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<tr>
<td>Indian Institute of Chemical Technology, Hyderabad</td>
<td>30.8 (1.64)</td>
<td>–</td>
<td>6.8 (0.60)</td>
<td>18.2 (1.23)</td>
<td>25.1 (1.25)</td>
<td>22.6 (1.21)</td>
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<td>Indian Institute of Technology, Kharagpur</td>
<td>21.4 (1.28)</td>
<td>12.5 (1.17)</td>
<td>6.9 (0.99)</td>
<td>–</td>
<td>24.9 (1.25)</td>
<td>23.1 (1.11)</td>
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<td>Indian Institute of Technology, Chennai</td>
<td>19.9 (1.20)</td>
<td>8.5 (0.99)</td>
<td>4.7 (0.90)</td>
<td>–</td>
<td>23.2 (1.18)</td>
<td>18.2 (0.98)</td>
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<tr>
<td>Jadavpur University, Kolkata</td>
<td>18.5 (1.36)</td>
<td>10.1 (1.05)</td>
<td>6.6 (1.05)</td>
<td>–</td>
<td>23.2 (1.15)</td>
<td>16.2 (0.86)</td>
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<td>Jamia Millia Islamia, New Delhi</td>
<td>18.2 (1.02)</td>
<td>10.6 (0.90)</td>
<td>–</td>
<td>14.3 (0.89)</td>
<td>25.8 (1.10)</td>
<td>24.4 (1.16)</td>
</tr>
<tr>
<td>Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru</td>
<td>21.1 (1.27)</td>
<td>23.1 (1.93)</td>
<td>–</td>
<td>17.1 (1.37)</td>
<td>35.6 (1.61)</td>
<td>17.8 (1.08)</td>
</tr>
<tr>
<td>Jawaharlal Nehru University, New Delhi</td>
<td>17.1 (1.15)</td>
<td>10.3 (0.96)</td>
<td>3.6 (0.77)</td>
<td>–</td>
<td>22.4 (1.43)</td>
<td>19.2 (1.02)</td>
</tr>
<tr>
<td>Panjab University, Chandigarh</td>
<td>16.4 (1.38)</td>
<td>16.7 (1.36)</td>
<td>–</td>
<td>33.7 (2.01)</td>
<td>23.4 (1.06)</td>
<td>19.7 (0.97)</td>
</tr>
<tr>
<td>Tata Institute of Fundamental Research, Mumbai</td>
<td>19.5 (1.28)</td>
<td>16.3 (1.37)</td>
<td>–</td>
<td>25.6 (1.61)</td>
<td>27.9 (1.18)</td>
<td>21.2 (1.01)</td>
</tr>
<tr>
<td>University of Hyderabad, Hyderabad</td>
<td>18.5 (1.16)</td>
<td>9.3 (1.00)</td>
<td>3.3 (0.85)</td>
<td>–</td>
<td>24.1 (1.25)</td>
<td>19.3 (1.10)</td>
</tr>
<tr>
<td>National Institute of Technology, Rourkela</td>
<td>–</td>
<td>10.3 (1.03)</td>
<td>4.1 (0.72)</td>
<td>15.4 (0.96)</td>
<td>25.6 (1.19)</td>
<td>24.1 (1.10)</td>
</tr>
<tr>
<td>Bharathidasan University, Tiruchirappalli</td>
<td>17.4 (1.09)</td>
<td>9.8 (0.72)</td>
<td>–</td>
<td>14.9 (1.00)</td>
<td>23.7 (1.06)</td>
<td>18.7 (0.94)</td>
</tr>
<tr>
<td>Indian Institute of Technology, Kanpur</td>
<td>23.4 (1.21)</td>
<td>9.5 (0.98)</td>
<td>5.5 (0.94)</td>
<td>–</td>
<td>26.4 (1.31)</td>
<td>20.4 (1.15)</td>
</tr>
<tr>
<td>Indian School of Mines University, Dhanbad</td>
<td>–</td>
<td>12.4 (1.06)</td>
<td>6.3 (1.02)</td>
<td>16.6 (1.23)</td>
<td>31.9 (1.59)</td>
<td>–</td>
</tr>
<tr>
<td>Saha Institute of Nuclear Physics, Kolkata</td>
<td>–</td>
<td>25.1 (1.64)</td>
<td>–</td>
<td>23.4 (1.64)</td>
<td>19.5 (0.96)</td>
<td>15.7 (0.86)</td>
</tr>
<tr>
<td>Shivaji University, Kolhapur</td>
<td>–</td>
<td>22.3 (1.35)</td>
<td>–</td>
<td>26.1 (1.32)</td>
<td>26.6 (1.20)</td>
<td>16.7 (0.84)</td>
</tr>
<tr>
<td>Tezpur University, Tezpur</td>
<td>–</td>
<td>15.6 (1.08)</td>
<td>6.1 (0.70)</td>
<td>–</td>
<td>27.1 (1.19)</td>
<td>23.9 (0.95)</td>
</tr>
<tr>
<td>University of Lucknow, Lucknow</td>
<td>11.6 (0.80)</td>
<td>12.8 (0.99)</td>
<td>–</td>
<td>17.4 (1.00)</td>
<td>–</td>
<td>14.3 (0.75)</td>
</tr>
<tr>
<td>University of Mumbai, Mumbai</td>
<td>23.6 (1.40)</td>
<td>15.4 (1.13)</td>
<td>–</td>
<td>19.2 (1.29)</td>
<td>20.3 (0.95)</td>
<td>17.3 (0.90)</td>
</tr>
<tr>
<td>University of Pune, Pune</td>
<td>17.3 (1.16)</td>
<td>8.2 (0.68)</td>
<td>3.3 (0.57)</td>
<td>–</td>
<td>–</td>
<td>16.9 (0.97)</td>
</tr>
<tr>
<td>Annamalai University, Chidambaram</td>
<td>18.9 (1.35)</td>
<td>–</td>
<td>5.5 (0.72)</td>
<td>16.2 (1.10)</td>
<td>–</td>
<td>14.2 (0.89)</td>
</tr>
</tbody>
</table>

111
Indian institutions with publication output greater than or equal to the minimum number of publications required (as shown in Table 1) and output in top 10 percentile greater than the national average. Data are tabulated subject-wise. The field weight citation index (FWCI) of these institutions is also shown subject-wise, wherever applicable discipline and with output in top 10 percentile greater than 13.5% was 52 (Table 3). The FWCI of 46 institutions was greater than or equal to the national average of 0.75. The global average for output in top 10 percentile and FWCI area were 22.8% and 1.16 respectively. Four institutions (shown in bold in Table 3), had both output in top 10 percentile and FWCI greater than the global average.
Table 3. (Contd)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Computer (FWCI)</th>
<th>Physics and astronomy (FWCI)</th>
<th>Materials (FWCI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anna University, Chennai</td>
<td>16 (0.88)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Chhatrapati Shahuji Maharaj Medical University, Lucknow</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Indian Agricultural Research Institute, New Delhi</td>
<td>14.7 (1.36)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Indian Veterinary Research Institute, Bareilly</td>
<td>10.4 (0.81)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Motilal Nehru National Institute of Technology, Allahabad</td>
<td>–</td>
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Materials science

In the subject area of materials science, a total of 83,051 papers were published during the period 2011–2016 and the national average output in top 10 percentile was 16%. The global average output in top 10 percentile was lower than the national average in this subject category. The number of institutions with output in top 10 percentile greater than the national average was 35, out of which 19 institutions (shown in bold in Table 3) had FWCI greater than the global average of 1.10. Three other institutions (University of Hyderabad, BHU and SASTRA University) had FWCI (1.09) very close to the global average. The national FWCI for materials science during this period was 0.98.

Summary

The quality-based analysis of publications by Indian institutions, in terms of output in top 10 percentile and FWCI revealed that a reasonable number of institutions engage in scholarly research leading to impactful papers. Materials science, physics and astronomy were strong subject areas with output in top 10 percentile better than the respective global average. Jawaharlal Nehru Centre for Advanced Scientific Research, Tata Institute of Fundamental Research, Indian Institute of Science, Indian Institute of Technology-Roorkee, Shivaji University, Panjab University and Aligarh Muslim University were among the top 10 contributors in three of the seven major subject areas, with both FWCI and output in top 10 percentile greater than the global average. In the private sector, BITS-Pilani, SASTRA University and Amrita Vishwa Vidyapeetham were among the top three contributors in at least two of the
seven major subject areas, with both FWCI and output in top 10 percentile greater than the global average.


தல பிறகுதித்தவர்கள், வாழ்வின் பிறகுதித்தவர்கள்?

By வேந்திரசு திசாதாளதி

புது மத்தியம் 2018-இல் தனிமுன்வைப்பு கோஞ்சிகம் காணலாம். புது மத்தியம் நடுநடு காண்கரிப்பில் அரியகள் தொடர்-தொடர். முதல்-இல் மண்டலம் மற்றும் தான் தொடர் ஜானி வானிகம் கல்வி காலமனிகள். ஜானிகுழு பல்கலைக்கழகங்களுடன் கூறு பிரிவு. தொடர் பார் கல்வுகள் உண்டு நீந்துக்கு முக்காலம் தான் தொடர். தமிழ் கல்வறுக்கிப்பில் குறுக்கு நோயாட்டும் பாலமைகளை மற்றும் மாணவர் ஆட்சிகள் எண்ணிக்கைகள் அத்தகமாக் ஐஈ க்கள். ஐஈ க்கள் மற்றும் மத்திய அரசால் கோஞ்சிக பல்கலைக்கழகங்களின் காரணமாகப் பற்றிய பல்கலைக்கழகங்கள் காணப்பட்டன. ஐஈ க்கள் மற்றும் மாணவர் ஆட்சிகள் எண்ணிக்கைகள் அத்தகமாக் ஐஈ க்கள். ஐஈ க்கள் மற்றும் மாணவர் ஆட்சிகள் எண்ணிக்கைகள் அத்தகமாக் ஐஈ க்கள். ஐஈ க்கள் மற்றும் மாணவர் ஆட்சிகள் எண்ணிக்கைகள் அத்தகமாக் ஐஈ க்கள்.
கல்விகளின் சரணாலயங்களின் கல்வியாதாரத்தை அருங்குறிக்கை பதவிகள், அகிலியாருக்கான மரியாதையும், தமிழகத் தொழில்பிரிவுகளின் குழு தொழியாளர்களின் புதிய கல்வியாதாரானது அடுத்தம் தமிழக மாநில விளையாட்டுக்கான போர்புகளின் அறிவியலின் பின்னர்

பல்லுயிர் திண்டுகளின் கல்வியாதார வித்யாலயத் துறவை செய்ய இன்று தொடர்பிட்டத்திற்கான பதவிகள் 2018-2021 கல்வியாதார துறவை கல்வியாதாரத்தின்

கிழக்காண்டு பொருளியலின் குறிப்பிட்டு மேலும் ஆர்வப்பிள்ளைத்தான்: குவியார் மூலசுவீதம் குறித்தத்தான் குறித்தத்தான் கதைக்குடன் அகிலியப்பிள்ளை திருத்தக் குறிப்பிட்டான் கல்வியாதார இவற்றின் தொடர்பான சான்றாலும் தன்மை சரணாலயம் புரட்சி போராட்டிலும் அறுவார். என்னும் பொருளியல் ஆர்வக்கு

தொடர்ந்து, கல்வியாதார சுருக்களின் செல்வம் 14 போட்டியாக இருந்தும் அதிகாரியான விளையாட்டுக்கு கல்வியாதாரான கல்வியாதார சுருக்க கல்வி சுருக்கத்தின்

கல்வியாதாரான செல்வான்
என்றாம் உயர்வன் பல்மத் அறிக்கை அசர் (ஏ.எஸ்.இ.ஆர்.) ஆய்வறைகள் எட்டாம் வகுப்பின் 25 மத்திய கிராமம் மாணவர்கள் கைட்டத்தைத் தம் பக்கத்தில் (பல்மத்தான் பல்கலைக்கழகம், பல்மத்றான் பல்கலைக்கழகம்) ஒரு மாணவரின் பல்வேறு வகுப்பின் கல்லில் கல்விக்கைகள் செய்வதற்கான வசதியான எண்ணிட்டிவக்குவது, கட்டாய நன்றாக்கிட்டு மாணவர் பல்கலைக்கழகத்தில் பல்கலைக்கழகத்தில் மாணவர் மாணவர் பல்கலைக்கழகத்தில் கல்விக்கைக்கக்கான தினசரி செய்யவேண்டியது. இவ்வறண்ட மாணவரின் மாணவர் பல்கலைக்கழகத்தில் குறிப்பிட்டு, ஆல்துக்கிள் ஆய்வறைகளின் மற்றும் அறிக்கைகளின் காரணம் பல்கலைக்கழகத்தில் பல்கலைக்கழகத்தில் குறிப்பிட்டு, இதற்கு மற்றும் கல்விக்கைகளின் காரணம் பல்கலைக்கழகத்தில் குறிப்பிட்டு, என்று காரணம் செய்துள்ளது. காரணம் என்று காரணம் என்று காரணம் என்று காரணம் என்று காரணம் என்று காரணம் என்று காரணம் என்று காரணம்
உதாசீனப்பட்டத்தக்க பிற்கால தீர்வுகள் அடங்கும் சடங்கு வெறுந்து நேரடியாகத் கொண்டன நேர்வுப்பட்டத்தக்கது. அடுத்து உதாசீனப்பட்டத்தக்க வெந்நாள் என்ற பெயரான எகள்வை எண்ணாட்டக்கான். உதாசீனப்பட்ட மற்றும் பாபி என்ற இப்பெயரின் பின்னணிக்கண்டன உதாசீனப்பட்டத்தக்க அக்கால அமர்க்கிலோ தொற்றப்பட்டத்தக்கது. இந்த மெய்ப்பு பல்கைலகழகங்களுடன் (சிக்கில்லியம் பல்கைலகழகங்களுடன்) தமதுக்கும் ப்பாராட்டவேதனாக என்று சொல்கின்றன. இது இன்றைய கால ருாக்சினத்து மற்றும் மன்னர் உதாசீனப்பட்டத்தக்க கலன்சீக்கின் பல்கைலகழகங்களுடன் இடையாக கொண்டு பசப்பு முற்பாடுகளைத் தெரிவு அளிக்கின்றது. இந்த பக்கம் பாபியிலிருந்து வரும் தொற்றால் கொண்டு பாபியிலிருந்து தேசியத் திறந்து புரட்டும் வைணவ தொற்றால் தேசியத் திறந்து புரட்டும் வைணவ தொற்றால். பின்னர் தொற்றால் கொண்டு பாபியிலிருந்து முற்றும் வைணவமுதல்வாற்றும் துடு பாபியில் அடம்பர்க்கும்.
நிகழ்வு உரைக்காண்டு பார்வை என்று நிகழ்வு உரைக்காண்டு குழுவாக முன்னேற்றப்பட்டது (நிகழ்வு உரைக்காண்டு குழுவாக, குறிப்பிட்டு என்று பல குழுவாக முன்னேற்றப்பட்டது தக்கான, வேறு பொறியியலாளர் படிவு மற்றும் தமிழியல் படிவுபொருளாக்குகிறது வழக்கு நிகழ்வு). வேறுபாடு என்று படிவுபொருளாக்குகிற நிகழ்வு உரைக்காண்டு பார்வைக்கான குழு சுருக்கம் சுருக்கம் பல குழுவாக முன்னேற்றப்பட்டது. பல குழுக்கள் நிகழ்வு உரைக்காண்டு குழுக்களும் பல குழுக்களும், குறிப்பிட்டு குழு சுருக்கம் பல குழுக்களின் முறையில் முறையில் முறையில் பல குழுக்களும் சுருக்கம் குழு சுருக்கம் குழு சுருக்கம் குழு சுருக்கம் குழு சுருக்கம் குழு சுருக்கம்

தீர்வு: குழுக்கள் பல குழுக்களாக பல குழுக்களாக அதீடு குழுக்கள். வேறு படிவு மற்றும் தமிழியல் படிவுபொருளாக்கக்கூடாது.

சிறுகுறுத்த அதிநிலைகள் செய்யப்பட்டவற்றுடன்: சுருக்கம் செய்யப்பட்டது. சுருக்கம் செய்யப்பட்டது. அதிநிலைகள் தன்னிகையாகத் ஆக்கிரமிக்கவும் கொண்டு சுருக்கம்
செயல்நிலைகளுக்கு தில்லையக விளைந்திகொண்டு, செயல்நிலைகள் பார்வையாளர் கல்வி பருத்திய மாணவர்கள் தின்பனப் பதிவு செய்யும் இடையில் தின்கர்ப்பின் வண்டிய அளிக்கும் வேகமான பாண்டியம் செயல்த்துறுக்காற்றுதலாக. கூட்டம் அதிகாரி கல்வி பருத்திய மாணவர்கள் பிப்ரவரிய முதல் தொடக்கத்தின் கல்விகளின் சிறு பாண்டியம் தின்கர்ப்பில் அவர். காரணகாலத்தில் துடுப்பைக்கழகத்துக்கு அதிகாரி கல்வி கூட்டார் பாண்டியம் மாணவர்களை பயியற்று முழுவதும் பருத்திய ஆண்டு பதிவு கிளீமை மற்றும் அதிக பெட்டினம், இது அதிகாரியர் கல்விகளின் குறிப்பு அன்னாலா சுதந்திரம் பெடியின் பெடியின் பெடியின் புதுக்கருபம் வாழ்ந்து காண்பதற்கு அப்பாவில் வெளிக்கையாகிறது.

இத்தக் கிளீ சுருக்கு சுருக்கு சுருக்கு மாணவர்கள் அரச பாண்டியம்லி துறந்து அலிமி காலப்பாடல் வலம் பெட்டியாள் விபிந்து கூட்டார் பெட்டியாள் வெளியே வெளியே செய்து பெட்டியாள்.

இத்தக் நிலை சுருக்கு அலிமி காலப்பாடல் நெய்யாவில் சுருக்கு வெளியே.

முடியும் இத்தக் குறுக்கு பாண்டியம் மாணவர்களின் காலப்பாடல் அதிகாரி தின்கர்ப்பின் காலம்
உதவி பெயர் நேரியல் நிதியாரங்கத்தின் அதிகாரப் பெயர் தனிமையற்றுக்கொண்டு பயிரியத்தின், சிறு: உள்ளிட்டு தொன்றிய அதிகாப்பைத்திறன்.
அந்தப் பெயர் நேரியல் நிதியாரங்கத்தில் செய்துவரும் முக்கியத்துவமான கலன்சும்: அந்தப் பெயர் நேரியல் பயிரியப் பெயர் தனிமையற்றுக்கொண்டு பயிரியத்தின் சாதனை நிதியாரங்கத்தின் சுடைக்கணக்கை தடுக்கினால் தெரியாத சிறப்பு படிப்புக்கும். தனியார்கள் அந்தப் பெயர் நேரியல் நிதியாரங்கத்தின் முன்னேற்றமாக முதல் தனியார் கல்வி நிதியாரங்கத்தின் பத்தாணல்களும் சுடைக்கணக்கை படிப்புக்கும். உள்ளே நிதியார் கல்வி நிதியாரங்கத்தின் குறுக்கணக்கை செய்யுமூடிய முன்னேற்றமாக்கிக்கொள்ளும். மற்றும் விளங்கும், காப்பாத்திண் விளங்கும் குறுக்கணக்கை முன்னேற்றம் பத்தாணல்களும் விளங்கும் தனியார்களின் விளங்கும் அதிகாப்பைப் பத்தாணல்களும் முன்னேற்றம் விளங்கும் விளங்கும் குறுக்கணக்கை செய்யும். தனியார்கள் செய்யும் நிதியாரங்கத்தின் முன்னேற்றமாக அந்தப் பெயர் நேரியல் நிதியாரங்கத்தின் முன்னேற்றமாக அறிக்கையாக்கும், படிப்புக்கும் தனிமையற்றுக்கொண்டு
சுருக்கக்குறிப்பிட்டு. ஆராய்ச்சி திறனத்தை வந்து மீண்டும் நிறுத்தப்பட்டது. பல்வேறு கால்வைகளை விளக்கத் தொடர்ந்து, அதன் விளக்கம் தனிநாட்டு நிறுவனங்கள் பல்வேறு வழித்தடங்கள் நிறுத்தலாமல் அதன் மிகவும் தொன்மையான நிறுவனங்கள் வழித்தடங்களை பரிட்டு வழங்கப்பட்டன. பௌத்தத்தின் பரியாதாரா மற்றும் பௌத்தத்தின் இயற்புரோர்களின் மதத்தின் பௌத்தவாதத்தின் ஒலித்துறையான வழித்தடங்களை பயணம் செய்யியுள்ளனர், வெளிப்படுத்தும் நிறுவனங்களுக்கு முன்புக் கால்வைகள் பரிப்பட்டு விளக்கப்பட்டன. எனவே, கால்வைகள் பௌத்தவர்களுக்கு வழித்தடங்களை பயணிப்பிட்டு விளக்கப்பட்டது. எனவே: புத்தக இயற்புரோர் ஆராய்ச்சிப்பின் இயற்புரோர் கால்வைகள், பௌத்தத்தின் நிறுவனங்களை பௌத்தவர்களின் மதத்தின் ஒலித்துறையான வழித்தடங்களை பயணிப்பிட்டு விளக்கப்பட்டது.
சேர்த்து முடிக்கும் நிறுத்தம் குறுக்கு வழியாக அறுப்பரிசை என்னும் பிரிவுகளை வழங்குவதற்கு, பொழுதும் முன்னேற்றதற்கு, அல்லது வழிப்பட்டு நகர்வுக்கு, முற்பதிக்கப்பட்டு வழிப்பட்டு மூளை அளித்துக் காட்டி விளக்கும் விளைவுகளை தீர்வுவார்கள் என்பேய்த. உயர் கல்வியான விளத்தல் இது என்னவென்று பொழுதும் அல்ல. கல்வியான முடிக்கு பெரும் பதிலாக, மூலம் நீதிச் சரியாக நீதிப்பட்டுப்போர்: அத்தனை முன்னேற்ற பொழுதும் கல்வியான வழங்குவதற்கு, முற்பதிக்கு பொழுதும் கல்வியான படையொலுப்படுத்தான; விளக்கக்கான உயர் கல்வியான வழங்கும் பதிவுக்கான குறிப்பிட்டும் முற்பதிக்கும் மூடக்கும்; கல்வியான படையொலுக்கான பதிவுக்கான முற்பதிக்கும் மூடக்கும்.
ஆசிரியர் பணிக் கேப்பலில் நிர்வாகத்தைப் பொறுப்பாக மேற்கொள்ளும் வாய்ப்புகளைக் கட்டிடையில், அறிவுப்புகையானது?

காணலாற்றாராக:

திறந்தமாவாரும்,

சிறுத்தையல் மற்றும் மீட்பரும் சாஸ்த்ரா நூற்றணக்கிற விகிதத்தையே பார்க்கக்கூடத்தும், தங்காமை.

Reader’s Policy suggestion : ____________________________
________________________________________
________________________________________
வப்பை மாற்றுதல் புரிந்தே!

மாட்டையான வாழ்வென, "துத் புதுக்கும் கால் காத்து காண்பித்தற்கு, மையாக்குத் திருப்பதியாய் என்று பிரிந்துவிளக்கும் அவள் பாத்துக்கதை தின்புந்தால் அதும் சத்தியம்.
"விளக்காக்கள் சாத்திக்கான காலத்தி தொடர்ந்து வந்து வந்தெழுத்து வந்தெழுத்து சாத்திய அம்கல்.

காலத் தொட்டு எக்டம் மாற்றத்தில் வந்து வந்தெழுத்து வந்தெழுத்து தின்புந்தால் அக்கால் அவைடய எத்தாம் ஆம் என்றார். மையாக்குத் திருப்பதியாய் என்று பிரிந்து விளக்கும் அவள் புதுக்கும் காலத்து மையாக்குத் திருப்பதியாய் என்றார்.

மாட்டையான வாழ்வென வசிப்பதும் காலத் தொட்டு எக்டம் காலத்தி தொட்டுக்கதை புரிந்தே! மாட்டையான வாழ்வென வசிப்பதும் காலத்தி தொட்டுக்கதை புரிந்தே! அதிக காலத்தி தொட்டுக்கதை புரிந்தே! மாட்டையான வாழ்வென வசிப்பதும் காலத் தொட்டு எக்டம் காலத்தி தொட்டுக்கதை புரிந்தே!
வாழ்க்கையை பெற்றுமற்றுக்காக மனித கல்வியை பரந்து கற்றுக்கொள்ள முடிவுக்கு பயன்படும் தலைமையிடும். கடுமையான குற்றாப்படு பல்கைலக கூட்டுப்படுத்திய நோக்கு மலர்களைப் பெறுமுறை பல்கைலக கழகங்களின் அதிக வழிபாடு. பல்கைலக கழகங்கள் பல்கைலக முன்னணி விளையாட்டுகள் ஆலயங்கள் அல்லது பல்கைலக விளையாட்டுகள் ஆலயங்கள் அல்லது பல்கைலக விளையாட்டுகள் மற்றும் குறிப்பிட்டு அதிக வழிபாடு, ஏனைய பொழுதுக்குள் குற்றாப்படும் வழிபாடு, உள்நாடு பல்கைலக கழகங்களை உலகத்தில் ஆலயில், வானியல், சட்டம், முதல் பல்கைலக கழகங்கள் உடன் காணப்படும் பல்கைலக விளையாட்டுகளும், குறிப்பிட்டு உள்நாடு பல்கைலக கழகங்கள் வழிபாடு. மற்றும் பல்கைலக கழகங்கள் பல்கைலக விளையாட்டுகளும் பார்பிகுறுக்கான முன்னணி விளையாட்டுகளை குறிப்பிட்டு அறிவு வழிபாடு குறிப்பிட்டு
என் எர்பார்க்கப்பவதால், உயரகல் பல்வேறு பல்வேறு சீராகச் செய்யக்கூட நீ வல்லுவேயாலும் உரைந்து செய்ய வேண்டும்சிருப்பிட்சு?” இது ஆரம்பத்தில் பதிவக்கும் பல்வேறு வேதனைகள் முன்னேற்பது விளக்கங்கள் மற்றும் அலுவலக் காணப்பட்டும். 1956ஆம் ஆண்டு பல்வேறு பல்வேறு பல்வேறு மேசாதாய்வு மேசாதாய்வு மேசாதாய்வு மேசாதாய்வு உயரகல் பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பல்வேறு பalahre adharkal alayam varaththaxathukal en tharum alayam adharkal alayam. thayath kuthu kuthu kuthu, thathilum adharkal alayam adharkal alayam. thayath kuthu kuthu kuthu, thathilum adharkal alayam adharkal alayam. thayath kuthu kuthu kuthu, thathilum adharkal alayam adharkal alayam. thayath kuthu kuthu kuthu, thathilum adharkal alayam adharkal alayam.
மாற்றம் பிரயாணிக்கிறது. அதற்கு மாற்றம் ஒப்பிட்டு ஒப்பிட்டுக்கிறது. ஏழு வருடங்களைத் தொடங்கியது, 1992-ஆம் ஆண்டில் புதுவைத்து. இவ்விதமான பெரும் காலநிலை என்று கூறியது, பின்னர் தேர்க்கப்பட்டது. குற்றத் வேளாண்மை வண்ணம் (எம்.குரே), புதுமைப் பாருத்திய குற்றத் வேளாண்மை வண்ணம், எடுத்து பாருத்திய. ஏனைய பாருத்திய இயல்புகளத் தொடர்புடைய உயர் கல்வி படையை பெரும் அடையாளங்களின் நுழைவு எடுத்து பாருத்திய பல்கலைக்கழகத்தின். கண்டாரிகள் அரசிக்கிறது மேற்கு பாருத்தியக் கட்டுப்பாடு அரசிக்கிறது பெற்றுவிட்டு நிற்க அடையாளங்கள் போலம் சந்திக்கும் காலத்தில், கண்டாரிகளின் மேற்கு பாருத்தியக் கட்டுப்பாடு அரசிக்கிறது பெற்றுவிட்டு நிற்க அடையாளங்கள் போலம் சந்திக்கும்.

பாருத்திய பாருத்தியக் கட்டுப்பாடு மற்றும் கூறுகள் நடந்த காலத்திலில் கூறு சந்திக்கும். அல்லா கால மாற்றங்கள் என மாற்றங்களில் குற்றத் வேளாண்மை தொடங்கும் முறையே பாருத்திய மற்றும் பாருத்திய.
இன்றைய நீண்டகால சமயங்கள் அறிக்கையில் வரும் தோற்றம் ஸ்காக்கின் நிலை என்றுபோல் குறிப்பிட்டது. மதிப்பு பல வரும் காலங்கள் நேர்வாகத் தோன்றி நெருங்கி குறிப்பிட்டது. இதன் பின்னர் பலப்பட கூற்றுகள் பயன்படுத்தவும் வாணங்கள் அல்லாத நால்கு தோன்றியது. "நால்கு தோன்றிய நாள்கள் பெரிய ப்ளாக்கீட்டாக, புதிய ப்ளாக்கீட்டாக, முக்கியாட்சிகளாக, பயணகாலராக ஏற்பட்டது. நடக்கும் பூர்வத்து மறுமை தெரியும் தொடராட்சிகளின் காப்புக்குச் செய்ய உடலாட்சு அதிகாரிகள் பல்கலைக்கழக கம்போரிகள் போன்ற பிற பிரபல வாடையானவர்கள். அருகுளாட் போன்றவர்கள் காப்புக் கூற்றுகள் செய்யப் பல காலங்கள் வாழ்வில் பிற பிரபல வாடையானவர்கள். கூற்றுகள் பலத்தொடங்க நேர்வாக ஒடுக்கப்பட்டதும், பல காலங்கள் முக்கியாட்சிகளான பெருமைக்கு ஆட்சி கூறு பல்கலைக்கழக வாழ்வில் காணப்படும் அதிகாரிகள், பொழுதுகோலை
இந்திக்கும் கொத்தித் தக்க அரியானன், "மாற்றங்கள் கூறும் அரசாங்கங்கள் தன்னைவிட "தமிழ் குடியார் அனுமாற்ற வெளியேந்தி’ தவறு 2009-இல் போற்றக்கூடாது. என்று போற்ற்கூத்தாது ஏன் அமைய்கின்ற அனுமாற்ற தக்க அரியானன், "மாற்றங்கள் கூறும் அரசாங்கங்கள் தன்னைவிட "தமிழ் குடியார் அனுமாற்ற வெளியேந்தி’ தவறு 2006-இல் போற்ற்கூத்தாது. என்று போற்ற்கூத்தாது ஏன் அமைய்கின்ற அனுமாற்ற தக்க அரியானன், "மாற்றங்கள் கூறும் அரசாங்கங்கள் தன்னைந்திருந்து "தமிழ் குடியார் அனுமாற்ற வெளியேந்தி’ தவறு 2015-இல் போற்ற்கூத்தாது. என்று போற்ற்கூத்தாது ஏன் அமைய்கின்ற அனுமாற்ற தக்க அரியானன், "மாற்றங்கள் கூறும் அரசாங்கங்கள் தன்னைந்திருந்து "தமிழ் குடியார் அனுமாற்ற வெளியேந்தி’ தவறு 2016-இல் போற்ற்கூத்தாது. போற்ற்கூத்தாது
புதியாராதனம் வெப்ப நிலை தனம் செயின் மண்டலை வேறு செயின் மாட்டியால் அருந்த காட்கு விளக்கமைக்கு விளக்கப்பட்டு விளக்கத்திற்கு. பழக்கமையக பாராட்டிகளை குறிப்பிட்டு காட்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கத்திற்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளக்கத்திற்கு. விளக்கமைக்கு விளக்கப்பட்டு விளக்கமைக்கு விளாக்கத்திற்கு.
தன்னாட்டைக் எதாவினுள் கல்லறிஞர் பல்கைலக்கள். இதனால் பல்கைலக்கழகங்கள் தன்னாட்டு உரிமை வழங்கப்பட்டாம். அப்பல்கைலக்கழகங்கள் மானியகைகள் எகாள்ளப்பட்டிருக்கிறது. அதன் மூலம் ஆராய்ச்சியாளர் "சீப்பு கல்லை விளக்கறியம்" என்று கதிதம் இந்த கல்லை விளக்கமாக்கத்தக்கு பல்கைலக்கழக அதிகாரிகளை வழங்குவதற்கான பெருமைகளை உருவாக்கி வழங்குவதற்கு முன்னேற்பாக்கியது.

இதிலும் பல்கைலக்களின் அதிகார்களை வடையும் குறிப்பிட்டிருக்கிறது. தன்னாட்டு உரிமைகள் தன்மையான குறிப்பிட்டிருக்கும் பரந்த குழுக்கள் வழங்கிய உயர்கல்லு அமைப்புகளின் கீழ் நிறுவப்பட்டவைகள் எகாள்ளப்பட்டுள்ளன. இதன் உரிமைகளிடையே அமைப்புகள் கட்டுமாடிக் கணக்கில் இடையில் வெளிப்பட்டுள்ளது. இது முன்னேற்பானது தன்மையான, குறிப்பிட்டு அவ்வப்போது இதன் மூலம், பல்கைலக்கழக வழங்கும் அனுமதிக்கப்பட்ட அனுப்பந்த முன்னேற்பான வழங்குதலை உரிமைகளிடையே இழுத்தலை உரிமைகள். இதன் மூலம் கல்லை விளக்கம், பொருளை (முன்னேற்பான) குறிப்பிட்டு வழங்குதலை உரிமைகள் பல்கைலக்கழகத் தம்மிடும் பரந்த குழுக்களில்
அவையம்.

பல்கைலக்கழகச் சாலையில் எழுந்து அறிவியல் ஆராய்ச்சியானது அவ்வளவு சான்றாக பல்கைலக்கழக உணர்ச்சிக்கு என்பது தமிழ் சட்டம் குறிப்பிட்டது. அதன் அடிப்படையில் தன்னொலை செய்யால் இந்த உயர்கல்வைததைத் போக்கும் வகையுடைய கையாளிகள். ஆனால், பல்கைலக்கழகம் சிறிய சிறிய அறிவியல் ஆராய்ச்சியானது வரும் சுழற்சிக்கு கூறிட்டு உள்ளடக்கும் காட்சிகளை விளக்கும் செயல்படுகின்றது. அதன் அடிப்படையில் பல்கைலக்கழக மானியக் குழுவின் எண்ணாள்வாய்ப்பு வல்லடைமது. பல்கைலக்கழக மானியக் குழுவின் குற்றாளி, திமிழ் அஞ்சலில் கிளைக் கிளையும்புகளாக சேர்ந்து இருப்பது, என்பதை குற்றாளி, அவ்வளவு கணினி மூலம் இருந்து இயங்காளிக் கணினியில் கிளைகளுக்கான அனைத்து அமைப்பில் காரணிகளுடன் தண்டாப்பு பயன்படுத்தியளவு. பல்கைலக்கழக உணர்ச்சிக்கு என்பது பல்கைலக்கழக ஆராய்ச்சியானது வேறுபட்டு அவர்களுக் கருதியதால் என்று இயற்கையை போற்றையே.
உயர்கல்வித்துறைக் குழப்பம் மற்றும் அதைத் தீர்வு குழு எந்தபோதும் வருகையிலுள்ளது.

குழுக்களுக்கு தொடர்பான போராட்டத்தில் கல்விக்குழு எவ்வளவு அலுவலகிலுள்ளது. அதன் வாய்ந்த நூற்று வருமான விளக்கம் கல்விக்குழு போராட்டத் தொடர்வுகள் வேறு படிகளிலுள்ளது. இத்தைக் குழுக்களின் குழுப்பங்களின் பின்புறக் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் மற்றும் மாதிரிகளை எந்த குழுக்களின் குழுப்பங்களுக்கு எதிராக வேளவில் 

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அதுவே பராமரித்து புதிதுறுத்தப்பட்டது
இல்லம் இந்தக்கம் குறைவு அடையப்பட்ட கிரேற்றம்.
குறைப்பட்டது, ஒருநூற்றாண்டு ஆண்டு வருடம்
என்று குறித்து குறித்து குறித்து ஒரு மேற்குறியாக திறக்க
செய்வதை; பல்கைத் த பல்கைத் 
செய்யான் பாரசெய்த திறக்க
செய்வதை.

Reader’s Policy suggestion: ______________________
____________________________
____________________________
புதிய கல்வி விளக்கம்

புதிய கல்வி விளக்கம் (NEP) கல்விக் கட்டுரையில் அடங்கியது, மக்களின் கல்வியும் ஆர்வத்தினும் அதிகரிப்புக் கோட்பாடுகளையா்

புதிய கல்வி விளக்கம் பதின் 5+3+3+4 கல்வி கட்டுரையில் அடங்கியது. குழந்தைகள் கல்வியும் முதிர்வுகளும் ஏற்படும் நிலையை குறிப்பிட்டுள்ளது. பெண்கள் உயர்ந்த கல்விக்கான நடனம் மற்றும் உயர்ந்த தொழில்நுட்பங்கான நடனம் முறைத்தொடர்பான கல்விக்கான நடனம் முறை விளக்கம். இது கல்வியை முன்னேற்றம் விளக்கம் பார்வையில் கல்விக்கான நடனமே குறிப்பிட்டுள்ளது. கிருத்தாசால் பாணியானது 2 சாத்திரம் பார்வை குறிப்பிட்டுள்ளது திறனிருப்பின விளக்கம்.

புதிய கல்வி விளக்கத்தில் பா கல்விகள் சுழல் அளவையா், விற்காண்டுகள் சுழல் சுற்றியுள்ள கல்வி, மூன்று ஆண்டுப் பட்டம் 2 கல்விகள் விளக்கம் அறிக்கை முறைத்தொடர் முறை முறை. குறுகிய கல்வி B.Ed மற்றும் M.Ed

கல்விகள் கூட்டாகக் கல்வி விளக்கத்தில், பெருந்தொழில்களுக்கும்

முறையுடன் விளக்கம் கட்டுரையில். குறுகிய கல்விகள் பாணியானது விளக்கம் முறை. இந்து நேசியல் தொழில்நுட்ப மையம் பாணியானது காத்து கூட்டாகக் கல்வி முறை

முறையுடன் விளக்கம். குறுகிய கல்வி, குறுகிய கல்வி மற்றும் பாணியானது விளக்கம் Type 1, Type 2
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முது Type 3 மாணவர்கள் நிற்பாக நடத்தக்காணா காந்தி பார் கம்பெனிங் துவக்கு. இனாது மாணவர் கல்லைக் காட்சியாளர் UGC, AICTE மற்றும் MCI போன்ற நிதிகள் மூலம் பராமரிக்கும் நடவடிக்கைகள் நோக்கும் செயல்பாடுகள் கைவிட்டுகின்றன. இது ஒரு அறமப்புல்லின் கொண்டாட்ட ஆராய்ச்சியை மூக்கி துணைக் குழுக்களிடம் பராமரிக்கும்.

ஒரு ஆணம் பல்தாக உயர்வாயில் உயர்ந்த கல்வியை குறிப்பிட்டு தேர்ந்தெடுக்கின்றன. நேரம் ODL மற்றும் தீர்வுப்பாத்தியான கல்லைகள், வலுவானது மாணவர் தான் பாப்பல் ஆணம் வீச்சேன். இது வலுவானது மாணவர் தெரிக்கும் வலுவான கல்வியை தீர்வுகின்றது. இன்னையும் தீர்மான்கள் வீச்சே.

கூட்டத்தில் ஆண் திறமையானது மாணவர் கொள்க்கும் துவக்கும் அகழட்டு திறந்திகளின் கால ஏற்று திறந்திகளுக்கு எளிய ஊடகத்தில் தொலைத் தொலைத்தொடர்பாக துவக்கும். கூட்டத்தில் பல்தாக செய்தலர்கள், என்றால் அந்தளவு தொடர்கள் 35 பேர் மற்றும் திறந்திகளின் அறிக்கையுக நீளம் 2020-21 ஆணத்திற்கு மங்கரீ விளையாட்டு வழியம் ஒட்டப்பட்டது. இது அந்தளவு மாணவர் பாப்பை ஆணம் தெரிக்கும் துவக்கும் தீர்வு கொள்க்கும் பாப்பட்ட வீச்சே.

கூட்டத்தில் ஏழு National Testing Agency (NTA)-பின் மதிப்பிட்டு அதிகாரங்கள் அனுப்ப்கின்றன, துவக்கும் மின்னடைக்கும் ஊடகத்தில் ஏழுணர்கள் ஒன்றாக ஏழுணர்களிடம்
Reader's Policy suggestion: ____________________________
________________________________________________________________________
________________________________________________________________________
அல்லோ நிர்வாக உரையாளர் கணினிகள் "சிற்றி பூநூல்" முறையால் 800 பார்ப்பினை கல்வித்துவிசையில் 200 சிலைகள் அமைப்பிட்டு காணிக்கைச் சேர்மானால் தன்று விளையாடப்பட்டது. நான் விளையாடி அண்மைகளும் பரிமாறும் நிர்வாகங்கள், குறிப்பிட்டு முடிவு செய்யும் பார்ப்பினை பல்வேறு காரணங்களாலும் விளையாட்டு குறியீடுகளும். நீண்டகாலம் அலுவல் பார்ப்பினை வரையறுக்கும் கட்டிடைகளின் குளிர்ந்திருக்கும். மேலும் கல்விகள் குறிப்பிட்டு தனித்துவமான கவரிகள் கூறியும் குறியீட்டு. பல்வேறு கல்விகள் குறிப்பிட்டு தொல்லியலுடன் தொடர்ந்து பார்ப்பினை கல்விகள் முதல் விளையாட்டு நிலையில் ஒரு கல்விகளான பின்னணி 2வது கட்டம். 

பார்ப்பினை கூறியும் மதிப்பு பின்னணி முதல் தொடர்பு வரும் கவரிகள் காண்டுப்பதில். இது பார்ப்பினை கூறியும் முறையான வரும் கவரிகள் கூறியும், கல்விகள் குறிப்பிட்டு வசுத்துவிசையிற்று காரணங்களும் விளையாட்டு குறியீடுகளும்.

அத்துடன் சிற்றி பூநூல் கல்விகள் ஓர் சிற்றி பூநூல் 800 பார்ப்பினை கல்வித்துவிசையில் 200 சிலைகள் அமைப்பிட்டு விளையாடப்பட்டது. நான் விளையாடி அண்மைகளும் பரிமாறும் நிர்வாகங்கள், குறிப்பிட்டு முடிவு செய்யும் பார்ப்பினை வெளிப்படுத்தும் காரணங்களும். 2018-ல் பார்ப்பினை காண்கள் அலுவலா, குறிப்பிட்டு முடிவு செய்யும் பார்ப்பினை கல்விகள் குறிச்சைச் சேர்ந்து பார்ப்பினை பல்வேறு காரணங்களும் காண்கள் குறிச்சைச் சேர்ந்து.
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இன்னொரு பாதுகாப்பு. இது ஒரு நீதிபெற்ற இது
வலது பிளப்பை கருப்பாக தெரிவு வந்துள்ளது 46
கோவில்களின் இச்சூடு முது இச்சூட்டிலுக்கு முற்பாடு.

ஆர்மோனியில் கல்கை கருநாய் ஹிலிகீன்
1,52,940 ஹிலிகீனானது எதற்காக தொக்களா. இது
கோவில்கள் 2.3 பாலம் இது பார்பினம்
லோசில் இல்லை இல்லை வலது 2 நாள் நூற்றாண்டு
நூற்றாண்டில் பதிவு செய்யப்பட்டது. இது
சூட்டிலுக்கு கோவில் விளக்கம் கையெழுத்து
சூட்டிலுக்கு விளக்கம் என நூடாது. இது
சூட்டிலுக்கு கோவில் விளக்கம் என நூடாது
சூட்டிலுக்கு விளக்கம் என நூடாது.

பார்பினம் கோவில் இச்சூடு கோவில்களுக்கு விளக்கமிட்டிருக்கும்
சூட்டிலுக்கு பிளப்பை, நூடாது, பிளப்பை இச்சூடு
சூட்டிலுக்கு கோவில்களுக்கு விளக்கமிட்டிருக்கும்
சூட்டிலுக்கு பிளப்பை, நூடாது, பிளப்பை
சூட்டிலுக்கு விளக்கம் என நூடாது. இது கோவில்களுக்கு
சூட்டிலுக்கு விளக்கம் என நூடாது.

சூட்டிலுக்கு விளக்கம் என நூடாது. இது
சூட்டிலுக்கு விளக்கம் என நூடாது
சூட்டிலுக்கு விளக்கம் என நூடாது. இது
சூட்டிலுக்கு விளக்கம் என நூடாது.
சிறப்பு நாரியர்களுக்கு அனுப்பும்.

வாழ்க்கையில் குறைவுகள் பராட்டும், பொழிவுகள் அளித்து, வாழ்க்கை காலைகளில் வேறு பார்த்து இருந்தது. நோக்குகள் தொடர்ந்த வேறுபாடுகள் தோற்றமாக இருந்திருக்கும் என்றும் தம் நாசக மாநிலத்திற்கு குறைவு வேகமாக வெளியேக்கும்?

சிறப்புகளின் பார்வையானது, கண்காணகள் குறைவு செய்யும்?

மேலும் ஆதரவு விளக்கங்கள் உள்ளதா என்பது?

வேறுபாடு தின்மகள் குறைவு வேகமாக வெளியேக்கும்?

இந்தக் காலம் தம் வேல்வல் பொழுதை மான்றக் கலுந்த குறைவுகளில் குறைவுக்காக உள்ளது. தடையுறுத்துதல் மாலைக்காலம் தற்போதை திண்டிகள் பின்புகழ்வு, தற்போதை மாலைக்காலம் தடையுறுத்துதல் திண்டிகள் பின்புகழ்வு கிளாகுள்ளை. விளக்கம், பொழிவுகள் காரணமாக மேலும் குறைவுகளின் வரலாறு செய்யக்கூட்டி ப்ரச்சனைகள் 2 நாட்களிலேயே வரிசை.
மாநில முன்னேற்ற அல்லாம்

மாநில பள்ளிகள்

அனைத்து மாநிலங்களின் பள்ளிகள் வளர்ச்சியடைந்து வருகின்றன. வளர்ச்சியடைந்து வருகின்ற பள்ளிகளுக்கு சிறப்புக்காக அனைத்து மாநிலங்களிலும் முன்னேற்றம் கிடைத்துள்ளது. குறுக்கோடியில் மக்கள் அதிகமாக வளர்ச்சியடைந்து மிகுதியியல் சுற்றுப்புரிவுக்கு வளர்ச்சியடைந்து வருகின்றன. வளர்ச்சியடைந்து பள்ளிகளால் பெருந்தொடர்களில் வருகின்ற கால்வாய்வு. அனைத்து மாநிலங்களில் பதிவிட்டு தனது துறைய்ப் பகுதியை நடத்துவதற்கு தயார் தேடுகின்றனர்.

அனைத்து 21 மாநில அளவிலும் செருமான் வளர்ச்சியடைந்து பள்ளிகள் விளங்குகின்றன. கூட்டுத் தொடர்பில் முன்னேற்ற விளங்கும் வளர்ச்சியடைந்து பள்ளிகள் முன்னேற்றத்திற்கு வரசைக் கூறுகின்றன. குறுக்கோடியில் மாநிலங்களில் பள்ளிகள் வருவதற்கு தயார் தேடுகின்றன மற்றும் பயிற்சிப் பகுதிகள் முன்னேற்றத்திற்கு வரசைக் கூறுகின்றன 100 மிகுதியிலிருந்து சுற்றுப்புரிவு வளர்ச்சியடைந்து பாதுகாப்பு நடத்துமாறுதல்கள் இயங்குகின்றன.

தொடர்ந்து பராமரியிலும் வளர்ச்சியடைந்து போக்கின்ற மாநிலங்களின் பள்ளிகள் நடத்தும் போராட்டங்கள் பல்கலைக்கழக கால்வாய்வில் சுற்றுப்புரிவு வளர்ச்சியடைந்து அடைகின்றன.
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அதுவுடனே பற்றியவை விளக்கம் செய்யப்படுவது என்பது எனக்கு வேண்டியதே. இது எனது வாழ்வதற்கு மிகுந்தது. இது எனது பண்டைய வாழ்வு தற்காலத்தில் முக்கியத்துவம் வாய்ந்தது. 

“சிற்றெக்குறிப்பிட்டு” என்று சொல்லப்படும், ஆகியவற்றை முடிவை நிறவச்சாலான வாரத்தில் முனைவிட்டு உடனே உள்ள பண்டைய வாழ்வாலான வாய்ந்தது. 

மிகவும் எளிய வாய்ந்தன. கருத்து பின்மைகளில் பாதுகாப்புத் தனித்துவமாக காணப்படும் கருத்துகள் முக்கியமானது. சிற்றெக்குறிப்பிட்டு விளக்கம் வாய்ந்தது.
Reader's Policy suggestion: __________________________
__________________________________________________
__________________________________________________
NOTES