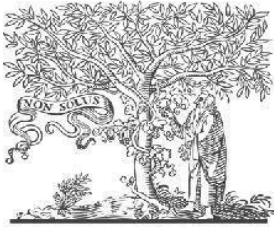


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Paper Authors

Kusumuru Srinivasa Rao



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Reforming Higher Education in India: Addressing Quality Deficits and Employability Gaps

Kusumuru Srinivasa Rao

Lecturer in Economics,

Govt Degree college,

Baruva, Srikakulam(dt) A.P.

Mail.Id. srinivaskusumuru1967@gmail.com

Abstract

India has birth rate of 25 million per year – developed countries have 1/3rd of students going to college. If India were to meet the same standard, it will need 8-9 million graduate seats in college and it has only 4.5 million today. India's contribution to the world research publication is only 3.7%, whereas China's contribution is 10.6% and the United States' contribution is whopping 27.7%. In the category of global patents, India's share is merely 0.5% and 0.2%, whereas China's share is 4.7% and 0.5% and the United States share is massive 52.2% and 41.8%. Though India has almost doubled its research publications between 2002 and 2008, this progress is overshadowed by glittering Chinese advancement (*UNESCO, Science Report, 2010*). India is entering the global employment marketplace with a self-imposed handicap of which we are just beginning to become conscious — an acute shortage of Quality institutions of higher education. According to the latest reports only 10% of graduates are directly employable in India and only 25% of engineering graduates are directly employable. Quality of education delivered in most institutions is very poor. The Indian Institutes of Technology are world renowned and their graduates are represented in some of the world's leading corporations. However, these elite institutions are accessible to only a few qualified students, less than 1%. The overall scenario of higher education in India does not match with the global Quality standards. This paper presents the brief idea about the quality of Indian higher education. It is also discuss the issues of Higher Education Quality, reasons for Poor Quality in Higher Education in India and suggestions for improving the quality of higher Education.

Key Words: Education, Quality, Employment, Issues, Challenges

Introduction

At present in India, about 10% of students between 17 and 23 years of age is opting for higher education; it is planned to increase this to 15% by 2015. However, one has to maintain quality as well. It is a sorry state of affairs that 50% of the children in government schools between 8 and 14 years of age cannot read a simple para, while 65% of them cannot do a simple, two-digit multiplication. Only with improvement in school education, can India become a knowledge-based society. Education is the birthright of every child, but it is pity that about 30 million children out of 200 million in the 6–14 years age group are deprived of school education, and about 80 million who have taken admission in primary schools quit study midway. School education can build a foundation for national development, while higher education plays an important role in shaping economic and social development. The need of the hour is to establish an influential body, with no bureaucratic hindrances. This paper presents the brief idea about the quality of Indian higher education. It is also discuss the issues of Higher Education Quality, reasons for Poor Quality in Higher Education in India and suggestions

for improving the quality of higher Education.

1.1.Higher education in India:

At the time of independence, the number of universities was no more than 20, of colleges around 500 and the total enrolment was less than 1.0 lakh. By the end of the 2012, the Indian higher education system has grown into one of the largest in the world with 634 universities, 33023 colleges, faculty strength of 8.17 lakh, and an estimated enrolment of 16974883 students. The higher education institutions include 43 Central universities (CU), 297 State universities, 129 deemed universities, 100 private universities, and 65 institutions of national importance established through central legislation and another 5 institutions established through State legislations. Table - 1 shows the growth of higher educational institutions in India.

Table -1
Type-wise Distribution of Degree awarding Universities / University Level Institutions

| Sl. No. | Degree awarding Universities / University Level Institutions | No. | Percentage |
|---------|---|-----|------------|
| 1 | Institutes of National Importance & Other University Level Institutions | 65 | 10 |

| | | | |
|---|----------------------|-----|-----|
| 2 | Deemed Universities | 129 | 20 |
| 3 | Private Universities | 100 | 16 |
| 4 | State Universities | 297 | 47 |
| 5 | Central Universities | 43 | 7 |
| | Total | 634 | 100 |

Source: UGC, Higher Education in India at a glance, February, 2012.

1.2. Student's enrolment in higher education in India:

Table – 2 shows the total students enrolments in different programmes in India. More than 80 percent of the students are joining in Graduation and out which only 12 per cent of the students are reaching post graduate course and only one per cent of the students are joining in research courses.

Table -2
Students Enrolment by stages in Higher Education 2010-11*

| Sl. No. | Course | Total | % |
|---------|-----------------------|----------|-------|
| 1 | Post-Graduate | 2049124 | (12%) |
| 2 | Research | 137668 | (1%) |
| 3 | Diploma / Certificate | 171618 | (1%) |
| 4 | Graduate | 14616473 | (86%) |

Source: UGC, 2012

1.3. Quality of higher education:

India is entering the global employment marketplace with a self-imposed handicap of which we are just beginning to become conscious — an acute shortage of Quality institutions of higher education. According to the latest reports only 10% of graduates are directly employable in India and only 25% of engineering graduates are directly employable. Quality of education delivered in most institutions is very poor.

Quality of education is a matter of grave concern for India notwithstanding islands of excellence and world class institutions. The vast majority of educational institutions from primary to university level suffer from resource crunch, inadequate infrastructure, inadequate human resource and poor quality learning resources. All these have pushed the quality to background. Malpractices at various levels are a stark reality. Education is facing new challenges in this Liberalisation Privatisation and Globalisation (LPG) era. The cost of education particularly higher and technical is raising manifold. Even bank loans are not adequate to open the doors for the deserving poor students. World class infrastructure is confused with quality of education. Education has become commercial with profit motive. It has ceased

to be a charitable activity. Cost escalation is a constant feature. States have come shrink their responsibilities and the cost is increasingly passed on to the citizens. English and English medium education is driving out others. Market forces have come to dictate and determine the goals and structures of education. LPG has become a multi dimensional challenge. Worldwide consumerism is also threatening education in many ways.

Institutions like the Indian Institute of Technologies (IITs), Indian Institute of Managements (IIMs) and Indian Institute of Sciences (IISc) have their own importance in professional education. But the vast population of the younger generation should derive maximum benefits from higher education. National Knowledge Commission (NKC) has recommended achieving a GER (Gross Enrolment Ratio) more than 15 by 2015. The moot point of the recommendation is to have about 1500 universities by 2015, to upgrade the quality of higher education. No doubt, we are not up to the mark in quality, but yet produce 2.5 million graduates every year. Many of our universities lack proper funding and rigorous monitoring. Also, there are political interferences, and a decline in the

quality of the faculty, which are detrimental to higher education.

1.4. Quality of Indian Higher Education compare to Other Developing Nations:

There was a time when countries could achieve economic success with cheap labour and low-tech manufacturing. Low wages still help, but contemporary large scale development requires a sophisticated and at least partly knowledge – based economy. India has chosen that path, but will find a major stumbling block in its education system. Indian is poor in terms of the overall quality education as compare to other developing nations. According to ASSOCHAM Eco Pulse Study 2008 depicted in **Table - 3**, Russia has emerged as the frontrunner in the quality of education parameter to compare several largest emerging economies of the world. On the other hand, India has been with the score points of 3.3 on the scale of 10. China, the largest sized among the developing countries and with the fastest growing GDP, has secured second place with score points of 6.7. Brazil is positioned at third place with 5.56 score points as the quality of education in Brazil remains stable across all levels of primary, secondary and higher education. Mexico has been ranked at

fourth place on the strength of its higher education

Table - 3
Score points for quality education on the scale of 10

| Sl. No. | Country | Score points |
|---------|--------------|--------------|
| 1 | India | 3.29 |
| 2 | China | 6.77 |
| 3 | Russia | 7.28 |
| 4 | Brazil | 5.57 |
| 5 | Mexico | 5.45 |
| 6 | Indonesia | 2.68 |
| 7 | South Africa | 3.89 |

Source: ASSOCHAM Eco Pulse Study 2008

1.5. Presentation of the Paper:

The objective of the paper is to know the Challenges of higher education in India, identify the reasons for poor quality in higher education and give suggestions for improving the quality. This paper is based on secondary data. The paper divided in to **five sections**, **first section** covers introduction and pressure points for Indian higher education. **Second section** deals with quality of Indian higher education. Important issues related to Indian higher quality presented in **section three** and **section four** covers Reasons for poor quality in Higher Education in India. **Last section** covers Requirements for improving the higher education quality in India.

2. Issues in Quality of Higher Education:

The Indian higher education system suffers even more due to poor quality; the National Assessment and Accreditation Council (NAAC) have accredited 148 out of 416 universities and 3934 out of 20,677 colleges by March 2009. Thus the quality status is formally known for these many institutions only. A glance at the status of the accredited institutions reveals that 68 per cent of colleges are rated a 'B' while another 23 per cent colleges are rated as 'C' grade; and only the remaining 9 per cent are 'A' grade. The situation for universities are not better as 46 per cent universities are rated as B grade while another 23 per cent are C grade; and the remaining 31 per cent A grade. Poor condition of the quality higher education India can be seen in recent (year 2010) times Higher Education World University Ranking. Indian is nowhere in this recently realized university ranking. Even Indian Universities and Institutes are not in top 200.

2.1. Pressure points on Indian higher education:

1. As per UNIDO, WHO, UNDP and the World Bank, nearly 600 million of the Citizens of India are not literate, 440 million are below the poverty line and nearly 300 million are unemployed.

- About 45 million unemployed are registered with the employment exchanges.
2. Less than half of female higher education graduates join the economically active population
 3. Among India's 15- to 29-year-olds, only about 2 percent have received formal vocational training
 4. Only 10% of graduates are directly employable
 5. Only 25% of engineering graduates are directly employable (*Infosys, an IT giant, last year sorted through 1.3 million applicants only to find that around two percent were qualified for jobs.*)
 6. According to Science Report 2010 of UNESCO, in the category of global patents, India's share is merely 0.5%, whereas China's share is 4.7% and the US' share is massive 52.2%.
 7. India's contribution to the world research publication is only 3.7%, whereas China's contribution is 10.6% and the United States' contribution is whopping 27.7%.
 8. The very low investment in education and training, at hardly 4.1% of GDP. This needs to be increased by at least two times, to 8 - 10% of GDP or

nearly US \$ 40 - 48 billion per year from about US \$ 16 billion per year.

9. Education needs additional investments of nearly Rs. 1,00,000 crores to Rs. 2,00,000 crores per year. Present investments are about Rs. 78,000 crores per year, out of which about 90% is financed by the states and the balance 10% by the central government.
10. According to the Planning Commission of India, the world will have 56.5 million fewer skilled workers than it needs by 2020. If India gets its education programs and skill development right, it will have a surplus of skilled manpower of 47 million by that year.

2.2.Gap in Demand and supply in Higher Education:

Huge demand supply gap – not just in terms of number of seats available but more so in terms of seats available in institutions who offer quality education

- Total 2,90,000 applications received for CAT – 2008, entrance exam for admissions to IIMs – only 1,700 get admission – only 1 out of every 170 students who take CAT will make it to

the IIMs. Number of applicants went up by 28% in 2008.

- IIT-JEE – > 3.95 lakh applicants in 2009 competing for 7000 seats – average 56 students competing for 1 seat.
- About 2 lakh students compete for the 77 seats available at AIIMS – a premier medical education institution in India.
- 9,500 seats in National Institutes of Technology (NIT) invited more than two lakh applications

3. Challenges for Quality of Higher Education in India: the main challenges for Indian higher education quality are;

3.1.Expenditure on Education:

In the Union budget for 2011-12, Indian Government has allocated Rs. 52,057 crore for the education sector, which is 24 per cent higher than the 2010-11 education expenditure. However, expenditure on education as per cent of GDP is relatively low in India when compared with some of the developed nations as also with some developing countries (Table -4). Among the G-20 countries, India not only has lowest educational indicators, but the public education system is also poor when

compared with other BRIC countries (Brazil, Russia, India and China) and some of the emerging market economies. India needs to be increased its education expenditure by at least two times, to 8 - 10% of GDP or nearly US \$ 40 - 48 billion per year from about US \$ 16 billion per year. Education needs additional investments of nearly Rs. 1,00,000 crores to Rs. 2,00,000 crores per year.

Table -4
Expenditure on Education

| Country | Spending on Education as per cent of GDP | Country | Spending on Education as per cent of GDP |
|---------------|--|--------------|--|
| Switzerland | 5.8 | South Africa | 5.3 |
| United States | 5.7 | Thailand | 5.2 |
| France | 5.6 | Chile | 4.2 |
| UK | 5.3 | Brazil | 4.2 |
| Malaysia | 8.1 | India | 4.1 |
| Mexico | 5.3 | Russia | 3.8 |

3.2.Poor quality in school education:

The annual status of education Report (ASER) 2009 Report released by India's Minister of Human Resource Development revealed the although enrollment In schools have increased, learning levels have declined over the years. It is poor to see that only 38% of the students from Class V can do arithmetic. **Table - 5** depicts the class wise % children who can do arithmetic. Table 3 it self explains the quality of education at schools level. The poor quality at school level finally leads poor quality in higher education the base of the student is not strong enough. According to a McKinsey study, only 25 per

cent of out engineering graduates, 15 per cent of out finance and accounting professionals and 10 per cent of professionals with any kind of degrees, in India, are suitable for working in multinational companies. This is the indicator of the poor quality of education in India.

Higher education is largely controlled by the University Grants Commission, which not only funds colleges and universities, but also lay down norms appointment and recognition. In this maze of statutory bodies there are two which are specifically responsible for ensuring quality standards – the National Assessment and Accreditation Council (NAAC) for general colleges and universities, and the National Board of Accreditation (NBA) for professional colleges, recognized by UGC. It is a measure of just how much importance quality standard given, that these bodies have accredited only a small fraction of the institutions for which the are responsible. For instance, of the over 1400 engineering colleges in the country, only about 8 per cent are accredited by NBA. Similarly, only about 20 per cent of the over 14000 general colleges have been assessed by the NAAC. School education remains unassessed for all practical purposes.

Table - 5
Class - wise % children who can do arithmetic (all schools) 2009

| Class | Nothing | Recognizing | 11-99 | | | Total |
|-------|---------|-------------|---------|----------|--------|-------|
| | | | Numbers | Subtract | Divide | |
| | | 1-9 | | | | |
| I | 30.7 | 44.6 | 18.7 | 4.0 | 2.0 | 100 |
| II | 11.3 | 34.2 | 36.9 | 13.6 | 4.1 | 100 |
| III | 5.4 | 20.5 | 35.1 | 28.4 | 10.6 | 100 |
| IV | 2.8 | 11.8 | 26.7 | 34.8 | 24.0 | 100 |
| V | 1.9 | 7.5 | 19.8 | 32.7 | 38.0 | 100 |
| VI | 1.2 | 4.6 | 14.3 | 29.7 | 50.2 | 100 |
| VII | 0.9 | 3.4 | 10.8 | 25.3 | 59.2 | 100 |
| VIII | 0.6 | 2.2 | 7.7 | 20.8 | 68.7 | 100 |
| Total | 7.6 | 17.4 | 22.1 | 23.4 | 29.4 | 100 |

Source: Annual Status of Education Report (ASER), 2009.

3.3. Poor Regulatory frame work in higher education:

For professional and vocational streams, there are centralized bodies that centralization bodies that grant recognition and lay down functional norms. Thus, the All Indian Council for technical Education (AICTE) supervises professional colleges, in collaboration with various professional bodies like Medical Council of India. some professional institutions are run directly by the Central Government, including the famous IITs and IIMs. On the other hand, Industrial Training Institutes (ITI) which from the backbone of the vocational system, are run by the Labour Ministry.

3.4. Quality and Quantity of Human Resource in Higher Education:

There is a quality and quantity deficit in Indian higher education in India. Almost 34 per cent of the 11085 teaching positions across 22 universities in India are lying vacant. The paucity of qualified faculty is felt

even more in professional and technical institutions. With the engineering students in India increasing every day, institutions are facing a faculty shortage to the extent of 67 per cent all over the country. Even in premier instate like IITs, faculty shortage is an issues of serious concern. Among the almost 1400 regulated B-Schools in the country, the “sanctioned” faculty strength could range anywhere from more than 1 to less than 10. But a majority of them don’t conform to the teacher student ratio of 1:15 stipulated by AICTE, the regulator. “Many regulated B-Schools have only 4-5 qualified teachers. They outsourced almost the entire teaching to so-called ‘visiting faculty’. Table – 6 shows the Faculty-wise Students Enrolment in Higher Education in 2010-11. In the country, student enrollment is more in Arts when compare to any other courses. It accounts more than 36 per cent enrollment and science and Commerce/Management occupies second and third places respectively. Enrollments in Agriculture and Law is very low when compare to other courses in India.

Table - 6
Faculty-wise Students Enrolment in Higher Education in 2010-11*

| Course | No. of teaching faculty | Student Enrollment |
|--------------------------|-------------------------|--------------------|
| Agriculture | 93166 | 0.55% |
| Medicine | 652533 | 3.85% |
| Engineering / Technology | 2862439 | 16.86% |
| Education | 569961 | 3.36% |
| Commerce/Management | 2904752 | 17.11% |
| Science | 3127042 | 18.42% |
| Arts | 6177730 | 36.39% |
| Veterinary Science | 27423 | 0.16% |
| Law | 327146 | 1.93% |
| Others | 232691 | 1.37% |
| Total | 16974883 | 100 |

* Provisional

Source: UGC, Higher Education in India at a glance, February, 2012.

3.5.Gap in higher education infrastructure:

India has one of the largest higher education networks with 25,951 colleges and 504 universities and university-level institutions. While the gross enrolment ratio (GER) has seen close to a seventy fold increase in the past six decades, the number of teachers has seen slightly over a twenty fold increase. This has resulted in a pupil to teacher ratio of 40, which is double the global average. However, despite the increase in enrolment, the GER at 11% (Eleventh Five Year Plan) is pegged at

half the average for Asian countries at 22% and the world average at 23.2%. The daunting task ahead of India is rather apparent when compared to countries such as USA at 83%, Sweden at 82% and Norway at 80%. To meet this colossal demand, higher education in particular has been allocated a historic five times increase in the total planned outlay for education in the Eleventh Five Year plan. Information, communication and technology (ICT) is a welcome development considering the challenges in monitoring the quality of physical infrastructure. It has played a crucial role in dramatically increasing outreach without bearing the cost of construction or maintenance for physical infrastructure. Structured initiatives such as education development index monitor the progress of efforts under various schemes for schools. In contrast measures available to monitor the quality of higher education institutes are still limited.

3.6. Quality of higher educational institutes:

Nearly 40% of colleges under the purview of University Grants Commission (UGC) do not receive any assistance as they do not fulfill the minimum quality requirement specified under section 12 (b) (for physical

infrastructure and human resources). The UGC has set up the National Assessment and Accreditation Council (NAAC), which functions as an autonomous rating agency. Ironically, there is no regulation that mandates this accreditation, which to date remains a voluntary effort, initiated by the institute itself. As on January 2010, NAAC has accredited only about 16% of the total colleges. Table - 7 shows the number of colleges and universities accredited by NAAC in 2002 and 2007.

Table – 7
Number of institutions accredited by NAAC

| No. of Institutions | 2002 | 2007 |
|---------------------|-------|-------|
| Universities | 201 | 378 |
| Colleges | 12342 | 18064 |
| NAAC Accredited: | | |
| (i) Universities | 61 | 140 |
| (ii) Colleges | 198 | 3492 |
| Enrolment(lakh) | 75 | 140 |

4. Requirements for improving the higher education quality in India:

To regulate and promote the quality and excellence, the UGC has made distinction between quality and an excellence in conceptual terms. And therefore separate indicators are used to measure quality and

excellence. The UGC's measures for excellence are in the nature of addition to the measures the quality. However, the following requirements are required to increase the quality in higher education systems in India. These requirements In terms of institutions, faculties & students, the major considerations to recognize quality are:

4.1. Institutions:

1. High ranking, good accreditation status
2. Prestige, reputation, public perception
3. Attraction & retention of quality faculty & students
4. Center of excellence
5. Excellent physical facilities

4.2. Faculties:

1. Excellent teaching performance with satisfactory feedback of students
2. Good industrial consultancy, sponsored research, patents
3. Good research publications
4. Organization & attendance of good number of conferences, workshops, seminars, expert lectures etc.
5. Awards, fellowships
6. Peer respect & recognition
7. Good mentors & consellers for students

8. Values and ethics

4.3. Students:

1. Good educational experiences
2. Good academic ambience
3. Value addition
4. Good employability after graduation
5. High reputation & prestige
6. High ethical standards

4.4. Other suggestions for high quality

higher education in India: this following suggestions help to meet the challenges in higher education and increase the quality in India;

1. Enhancing the quality of teaching, learning and evaluative methods.
2. In future, there will be huge demand for quality Higher Education Institutions, but on other hand no takers for non qualitative institutions;
3. Encouraging innovations in practical teaching, enhancing the productivity of teachers;
4. Networking of Higher Education Institutions for sharing of infrastructure resources;
5. Focus on continuous development of faculty;
6. Knowledge alliances (universities/ colleges with 'potential for

excellence' to support the academic growth and development of developing institutions).

7. Removal of knowledge obsolescence to provide relevant and advanced information;
8. Implementation of internal quality assurance systems;
9. Promotion of inter – disciplinary teaching and research;
10. Promoting across flows of teachers and scientists through interaction between universities and research laboratories;
11. Performance evaluation of Higher Education Institutions by accreditation agencies;
12. Creation of knowledge connectivity map across the country (UGC – infonet, e-journal subscription, edusat etc.);
13. To gear up to meet the increasing demand for quality higher education at low cost;
14. Requirement of IPRs and familiarization with patenting of new knowledge;

5. Conclusion:

The higher education system in India has grown in a remarkable way; the gross enrollment ratio is increasing year by year. The numbers of universities are increased from 30 in the year 1950 to 634 in 2012. At the same time numbers of institutions are increased from 695 to 33023. But when we consider the quality of education in India, only 10% of graduates are directly employable in India and only 25% of engineering graduates are directly employable. Quality of education delivered in most institutions is very poor. We are investing the very low investment in education and training, at hardly 4.1% of GDP. But we require 8 - 10% of GDP or nearly US \$ 40 - 48 billion per year from about US \$ 16 billion per year. Along with the investment, the Universities and institutions have to perform multiple roles, like creating new knowledge, acquiring new capabilities and producing an intelligent human resource pool, through challenging teaching, research and extension activities so as to balance both the need and the demand. The institutes also use ICT, latest teaching methods, faculty training programmes and fair remuneration to faculty to increase the quality of teaching. The government should

encourage the Public Private Participation in increasing the quality of higher education in India.

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