

Reinventing Teaching and Learning in Higher Education Institutions (HEI) by Innovation

Krishan Kant^a & Sachin Garg

^aPrincipal, Aggarwal College Ballabgarh, Distt. Faridabad (Haryana) India - 121004

E-mail: kkant67@gmail.com

Deptt. Computer Science, Aggarwal College Ballabgarh, Distt. Faridabad (Haryana) India - 121004

E-mail: sgarg213@gmail.com

ABSTRACT

In the present scenario there is a paradigm shift in the teaching-learning methods so as to produce market oriented skilled manpower.. The old curricula and traditional methods of teaching are almost obsolete as they are not able to produce job oriented skilled manpower and are being taken over by others modes of delivery in the era of Information Communication Technology (ICT). The traditional chalk and talk method has almost been replaced by the rampant use of audio-visual methods adorned with ICT (smart class rooms, interactive boards and even cloud computing in HEIs predominantly in (SFS) Self Financing Institutions in the country. But for them the education itself has become a profitable venture that the quality is missing as there is mushroom growth of professional institutions with quota system and politicization making its gravity more deep thereby increasing unemployment of graduates. Although to enhance the quality of

education in Haryana, the state government has taken steps to augment the existing infrastructure and introduce many innovative educational policies yet as such there is no way to examine the impact of fundamental change from the policy level to the institutional level and to the everyday lives of colleges and university administrators, faculty, students and other stakeholders. Still we have a long way to go to achieve the target by producing desired results. It is the need of the time to create a second wave of institution building and excellence in the field of higher education, research and capability building so as to make worthwhile and beneficial to all concerned. In the present paper the current status of HEIs as regards number, infrastructure, delivery methods etc. have been critically studied and analyzed and some recommendations have been made for reinventing Teaching and Learning in Higher Education Institutions (HEI) by Innovation in Haryana.



1. INTRODUCTION

1.1 General

Skills and knowledge are the driving forces of economic growth and social development of any country. Education is the most powerful weapon, which you can use to change the world - Nelson Mandela and it plays an essential role in the advancement of economy by making it more productive, innovative and competitive through the existence of more skilled human potential which finally escort to a nation's development. The level of employment, its composition and the growth in employment opportunities are the critical indicator of the process of development in any economy. The era of globalization, privatization and industrialization began long ago but we could not maintain our pace and the teaching and learning in HEIs couldn't provide the skilled persons as per the market demand, may be the industry, organized or unorganized sectors etc. It is an established fact that majority of the HEIs not make them employable i.e. they are qualified unemployables. Though there are institutions like ITIs to produce skilled manpower but yet the desired results are not obtained. The need for giving emphasis on the Skill Development, especially for the less educated, poor and out of school youth has been highlighted in various forums. The skill level and educational attainment of the

work force determines the productivity, income levels as well as the adaptability of the working class in changing environment. Large percentage of population in India is living below poverty line. One of the important causes is lower percentage of skilled persons in the workforce. The skill development at present is taking place mostly in the informal way, i.e. persons acquire skill at the work-place when they help their parents, relatives and employers etc. Such persons do not have a formal certificate and thus earn lower wages and are exploited by employers. They have come through informal system due to socio-economic circumstances of the family and the compulsions of earning a livelihood rather than attending a formal course. While their productivity is low, their contribution to the national GDP cannot be ignored. In the recent past keeping in view the market demands, Governments are traditionally keen to invest in technical and vocational education, which they consider the driving force of modernization. Following the famous saying, "seeing is more potent than listening, and involving students will make them learn in an effective way", various ministries and authorities are making policies to update the existing infrastructure and setting up of state of art fully equipped classrooms containing smart boards adorned with ICT and even use of cloud computing besides the traditional chalk and talk method to make

the deliberations more students centered and effective. Government has taken rapid strides to produce skilled manpower and various schemes and courses have been launched by National Skill Development Corporation (NSDC) Ministry of Finance (Standard Training and Assessment Reward (STAR) Scheme) for youths in schools, colleges and in public at large, National Skills Qualifications Framework (NSQF) by Ministry of Human Resource and Development (MHRD) for schools and colleges and the concept of Vocation Courses and community colleges has been launched by UGC. The HEIs have been suggested to develop strong institution-industry interface and update their curriculum as per the market demand so that the students who are coming out after passing their under Graduation and Post Graduation from Various HEIs are absorbed in the market. In the present paper the current status of HEIs as regards number, infrastructure, delivery methods etc. have been critically studied and analyzed and some recommendations have been made for reinventing Teaching and Learning in Higher Education Institutions (HEI) by Innovation in Haryana so that we are able to maintain pace with the changing times and demands of the market so that the youth coming out after passing UG as well as PG programmes from HEIs in Haryana are absorbed either in organized or unorganized sectors.

1.2 Study Area at a Glance

The State of Haryana came into existence on 1st of November 1966. Since then it has been achieving an all round development. Its importance lies in the fact that 30 per cent of its total area, comprising the districts of Faridabad, Mewat, Gurgaon, Rewari, Jhajjar, Rohtak, Sonapat and Panipat, falls into the National Capital Region (NCR) of India. Differently stated, 40 per cent of the total area of the National Capital Region (NCR) is that of Haryana State. The State of Haryana is spread in the total area of 44,212 sq km. the total population of State of Haryana is around 2, 53, 53, 081 with a literacy rate of 76.64% (CENSUS of India, 2011). A map indicating the State of Haryana is shown in fig. 1 and showing the location of its various districts and the state of infrastructure development in the State.

1.3 Current Scenario

Government of India is doing lots of efforts in this field so that the objective of inclusive growth can be achieved very soon by it. A great achievement of the Indian government is a big jump in the literacy rate from 18.3% in 1950-51 to 74.04% in 2010-11. Such an achievement is the result of a lot of efforts by the Indian government in the education sector (Goel, 2008). India's higher education system is the world's third largest in terms of students, next to China and the United States. Unlike China, however, India has

the advantage of English being the primary language of higher education and research. India educates approximately 11 percent of its youth in higher education as compared to 20 percent in China (Agarwal, 2006). The main governing body at the tertiary level in the University Grants Commission (India), which enforces its standards, advises the government and helps coordinate between the centre and the state. Universities and its constituent colleges are the main institutes of higher education in India. At present in 2014, there are 700 government recognized universities in India. Out of them 44 are central universities, 129 are deemed universities and 154 are private universities and 67 are Institution of National Importance and rest are state universities. In Haryana, there are 39 government recognized universities Out of them 01 is central universities, 01 is institution of National Importance, 5 are deemed universities and 17 are private universities and rest are state universities as shown in fig. 2.

2. OBJECTIVES & RESEARCH METHODOLOGY

The objectives of the present study are:

1. To Present the Higher education system in Haryana
2. To convey Problems in Higher Education System in Haryana

3. To improve the Education System of the Haryana under the study.

The present study is based on the secondary data collected from the various sources like national reports and economic surveys, websites etc. of state and national level department of education. Statistical tools like bar graph, linear charts etc. have been used for interpretation of the data.

3. SCENARIO OF HIGHER EDUCATION INSTITUTIONS (HEI) IN INDIA AND HARYANA

A sound higher education sector plays an important role in economic growth and development of a nation. Higher education, in terms of its relevance and importance, enjoys a significant position in the education system as it equips people with appropriate knowledge and skills to be gainfully employed. India has one of the largest systems of higher education in the world offering facility of education and training in almost all aspects of human creativity and intellectual Endeavour. In the context of current demographic structure of India where the majority of population is below the age of 25 years, the role of higher education is critical. The general education mainly consists of higher education courses in arts, commerce and science, the technical education on the other hand comprises of programmes of education,

research and training in engineering technology, architecture, town planning, management, pharmacy and applied arts and crafts. Professional education includes courses in medical education, law and other specialized fields (Chatterjee, 2008).

3.1 Education Infrastructure

3.1.1. Number of Higher Education Institutions (Chronological Growth)

Higher education in India has witnessed an impressive growth of HEIs (Colleges and Universities both) over the years as shown in fig. 3 (A & B). The number of higher educational institutions (HEIs) has increased from about 30 universities and 695 colleges in 1950-51 to about 700 universities (as of 2012-13) and 35,000 colleges (as of 2011-12) as per a recent UGC report (MHRD, 2013). With an annual enrolment of above 25 million (including enrolment under Open and Distance Learning system), India is today ranked as the third largest higher education system in the world after US and China (HEI, 2003). As may be seen from Figure 3 (A&B), there has been a threefold increase in the number of HEIs in the country during the last decade.

3.1.2. Higher Education Institutions by Type

The break of HEIs in the country is shown in fig. 4. The break-up of number of HEIs in the country shows that the share of state universities is the

highest (44%) followed by private universities (22%), deemed universities (18%), institutes of national importance (10%) and central universities (6%).

3.1.3. Education Infrastructure in Haryana

The break-up of number of universities in the Haryana state on the basis of type of University is given in table 1 and types of colleges is shown in fig. 5. Haryana ranks 11th highest among all states and Union Territories in India with 21 Universities. HARYANA has 3.4% of all Universities in the country. Haryana with 1054 colleges has a share of 3.2% of all colleges in India and **ranks #10 in terms of total colleges in any state in India**. In terms of access, Haryana has a higher concentration of 33 colleges per lakh population as compared to the all India average of 23 colleges per lakh population. In terms of average enrolment per college, Haryana (766) is **higher than all India average of 700**. Total enrolment of students in regular mode in higher education institutes in Haryana is around 7.09 lakhs. Out of the total colleges in the state, 97% are affiliated to Universities, and the remaining are constituent/university colleges, PG/off campus or recognized centres by the Universities. In terms of management, Haryana colleges are dominated by the Private Unaided colleges, forming 60.2% of all colleges in the state, followed by 22.9% owned by

Government and 16.9% that are private aided (Chatterjee, 2008), (MHRD, 2013) and (HEI, 2003).

It has been seen that a large number of graduates students are getting frustrated due to non-availability of jobs in the corporate world. Their skills are not as per the requirement of the corporate world. So, there is a need to improve the quality of education rather than just increasing the number.

4. PROBLEMS IN HIGHER EDUCATION SYSTEM WITH SPECIAL REFERENCE TO HARYANA:

In the present education system, the students are forced to study those subjects in which either they don't have any interest or the subjects have become redundant in the present scenario. Moreover even with the adoption of semester system in higher education, the curricula have not been revised since long and the component of vocational education is meager. There is no option of choice based credit system. As a result, the passing out Graduates and Post Graduates are not acceptable in the market. Student Teacher ratio is one of the biggest problems while providing quality education. UGC has recommended an ideal ratio of 1:30 for the undergraduate courses. But unfortunately, due to lack of educational institutes in rural areas this ratio is

very high becomes an obstacle while providing the quality education.

There are many basic problems facing higher education in Haryana today. These include inadequate infrastructure and facilities, large vacancies in faculty positions and acute shortage of skilled and trained faculty, low student enrolment rate, students unrest and culture of non-attending the classes, outmoded teaching methods, declining research standards, unmotivated students, overcrowded classrooms and widespread geographic, income, gender and ethnic imbalances are the major problems in HEIs in Haryana. Apart from concerns relating to deteriorating standards, there is reported exploitation of students by many private providers. Ensuring equitable access to quality higher education for students coming from poor families is a major challenge. Students from poor background are put to further disadvantage since they are not academically prepared to crack highly competitive entrance examinations that have bias towards urban elite and rich students having access to private tuitions and coaching (Ramachandran, 1987). Research in higher education institutions is at its lowest ebb. There is an inadequate and diminishing financial support for higher education from the government and from society as only 3% of GDP is allocated for higher education. Government tries to make different



policies, which are implemented, but quality never checked. Majority of fund goes in the pockets of officials working for this. There is great need to revolution in higher education. The time now is to modernize our education system so that our country can get much more technically graduated people, which can help our country to developed state (HEI, Yashpal, 2009).

5. SUGGESTIONS AND

RECOMMENDATIONS FOR

IMPROVING QUALITY IN TEACHING

AND LEARNING IN HEIs:

1. World Class Education with state-of-art

Infrastructure: Indian Government should give priority to the development of state-of-art Infrastructure to uplift the standard in education. Government should aspire for the international standard in education. Many national universities like in the USA, UK, Australia, etc. allow studies in higher education for foreign students in their countries and through correspondence courses as well (HEI , 2003). In the same way Indian Universities of world-class education can also offer courses to foreign students taking advantage of the globalization process. To achieve that goal it should adopt uniform International syllabus in its educational institutions.

There should be High-tech online libraries having conducive atmosphere for study with all latest softwares built-in. Indian Universities should concentrate more on providing quality education, which is comparable to that of international standards (Chandra & Patkar , 2007).

2. Institution-Industry Interface: There is a strong need to develop Institution-Industry Interface to enhance the employability of the students. To set up Skill Development Centers where more stress is on practical knowledge along with their present curriculum. There should be good mix of theory and vocational training in the curriculum (40% + 60%). The curriculum should be frequently and periodically revised as per the market requirements. It is necessary to ensure technical skills, Communication Skills, Professional Development and overall employability of the students otherwise the HEIs will no more be the centres of academic excellence (Mpaata, 2010). Besides all this there is a strong need to aware the students about moral values, environmental education and exposure about the disaster management.

3. Training and Incentives to Teachers,

Researchers and Students: There is a need for expansion of support institutions (model universities, colleges and institutes) providing services like research, learning material, training of trainers,

monitoring and evaluation. The teaching or training professionals should also undergo rigorous training in teaching methodology and industrial practical training in these institutions. Incentives should be provided to teachers and researchers to make these professions more attractive for the younger generation. Besides, more scholarships to the needy (SEW Category) and meritorious students irrespective of the salary of the parents should be started by the Government and even the private groups under corporate social responsibility (CRS) policy. Besides all this, in order to stop teachers drain and develop a feeling of responsibility and sense of belongingness amongst teachers so that they can be retained in the institution, their satisfaction as regards job and other perks and perquisites is indispensable. It is rightly said that the attitude and beliefs affect the behavior and may cause a person to work harder with devotion, dedication and loyalty.

4. Innovative Practices: Improving the quality of education and training is a critical issue, particularly at a time of educational expansion. Use of ICT allows for the creation of digital resources like digital libraries where the students, teachers and professionals can access research material and course material from any place at any time (Bhattacharya & Sharma, 2007). Even now a days the concept of cloud computing has emerged where the education is

possible even in remote areas and there can be teacher-student interaction even sitting at home or in Synchronous Learning Technology (SLT) rooms making use of Teleconferencing and Videoconferencing . ICT can enhance the quality of education in several ways (Casal, 2007); viz. Use of ICT as in cloud computing makes assessable education anytime and anywhere; Motivating and training the trainers, teachers and students to learn using multimedia and other techniques; Use of audio visual facilities; viz. Radio and TV broadcasting in spreading awareness about education and various schemes so that it can reach to every nook and corner of the society and in addition to chalk and talk method, interactive Boards in the Classrooms

5. Focused and Student-Centered Education using

Dynamic Methods: Student centered education and employment of dynamic methods of education will require from teachers new attitudes and new skills. Methods of teaching through lectures will have to subordinate to the methods that will lay stress on self-study, personal interaction/consultation, mentoring between teachers and pupils, and dynamic sessions of short term courses, symposia, seminars and workshops. There should be focus on improving opportunities for women, disabled and other disadvantaged groups in vocational training and



efforts should be made to introduce multi-skilled courses to enhance the Broad Based Basic Training.

6. Public Private Partnership (PPP) Concept: PPP modal can be a very important tool enhancing the quality of higher education. UGC (University Grants Commission) and Ministry of HRD play a major role in developing a interface between the universities, industries and national research laboratories as a step towards Public Private Partnership. Funding to National Research Laboratories by the government should ensure the involvement of institution of higher education engaged in research activities. Government and Private educational Institutions should develop the teaching staff at various levels.

6. Job Oriented Courses: We should provide job oriented courses i.e. Vocational Courses to the students so that they can achieve laurels in the field they are interested. Vocational degree and Diploma Courses and short term courses (certificate, diploma and post diploma) need to be more attractive to facilitate specialized programs being offered to students. These courses will enhance employability of the graduates and meet industry requirements. Short term courses in ITIs in order to address skill development needs of the un-organized sector should be started. Courses for new emerging areas including services sector should be developed and greater autonomy to the ITIs should be provided and

introduce the accountability framework. The linkages between ITIs and the local Industrial units should be strengthened. It is also advisable on the part of the HEIs to start outreach programmes.

7. Quality Development, Sustenance and Enhancement: The “culture of higher education” has become “increasingly market-oriented” and the level of education and knowledge being imparted by the many colleges is not up to the mark (Green, 1993). Instead of concentrating on quantity and good returns on investments, quality assurance in HEIs should become a focus of attention for private universities (state and deemed) (Yorke, 2000) and (Jones, 2003) and the quality of teaching should be excellent as the students are one of the major stakeholders (Telford & Masson, 2005).

8. Market and Society Oriented Research: The approach of doctoral research in social sciences needs to be more analytical and comparative and be related to society, policy and economy. More universities in specific disciplines like agriculture, horticulture etc be opened to produce highly skilled educated professionals who can use their expertise in enhancing crop yields and other parameters using latest techniques. A study conducted on Social Science Research Capacity in South Asia showed that the share of the Indian Universities in the special articles published in the Economic and political



weekly was only about a 25 percent (Bali, 2014). This was dominated by only three universities, namely-Jawaharlal Nehru Delhi, University of Mumbai and University of Delhi.

10. Uniform Grading System: Today, Most of the top institutions of India and abroad are using grading system. But non-uniformity of this system cause barrier in the mobility of students across the institutions and countries. So, it is desirable to set up uniform grading system. This will allow not only mobility of students across the institutions within and across countries but also enable employers to judge the performance of the students.

11. Choice Based Credit System: The Present education system is suffering from various restrictions like Lack of Choices for the student, No opportunity to the learner to walk out and walk in to earn a certification, No scope to introduce latest knowledge in the curriculum, Learning goals of the course and learning objectives of the units never enunciated. To overcome these limitations, UGC has introduced choice base credit system (CBCS), a flexible system of learning that permits students to,

- learn at their own pace,
- Choose electives from a wide range of elective courses offered by the University departments,

- Adopt an inter-disciplinary approach in learning, and
- Make best use of the expertise of available faculty.

12. 21st Century Learning Design: 21st Century Learning Design (21CLD) professional development can be used in conjunction with the Microsoft product 'Yammer'. Yammer is an enterprise social network service that creates enthusiasm among diversity students. With the help of it, teachers can redesign their existing lessons and learning activities to build students' 21st century skills. Students can use it to share their knowledge, discussion, project management, community building etc. With Microsoft Office for education and Yammer, teachers can get more done in less time. They can evolve lesson plans and collaborate with other teachers on subject material more effectively. They can better communicate with other teachers and students using the latest communication technology such as IM or video conferencing. Also, students can converse, share files, and chat with each other. They can post their problems on the white board online and the teacher or any other can troubleshoot that problems.

13. Above all there is a strong need to improve the quality of academic standard at primary, middle, high and senior secondary level.



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Fig. 1: Geographical Map of Haryana State.

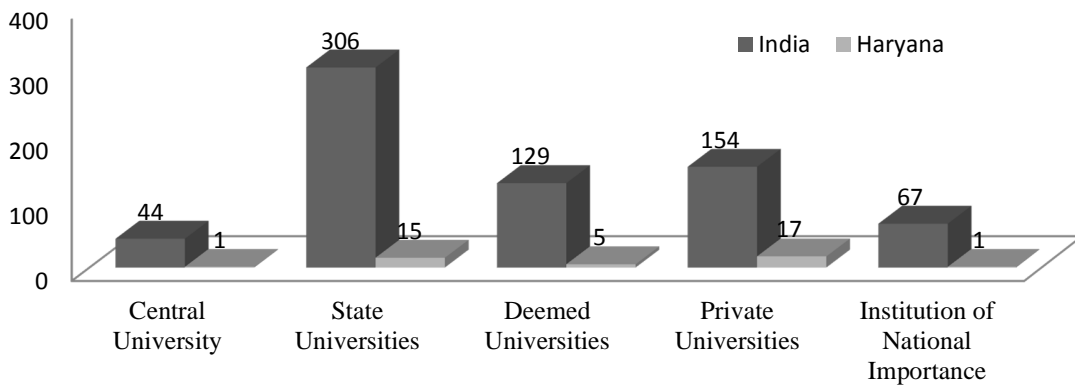


Fig. 2: The Status of Universities in India and Haryana
(Source: UGC Higher Education at a Glance- June, 2013)

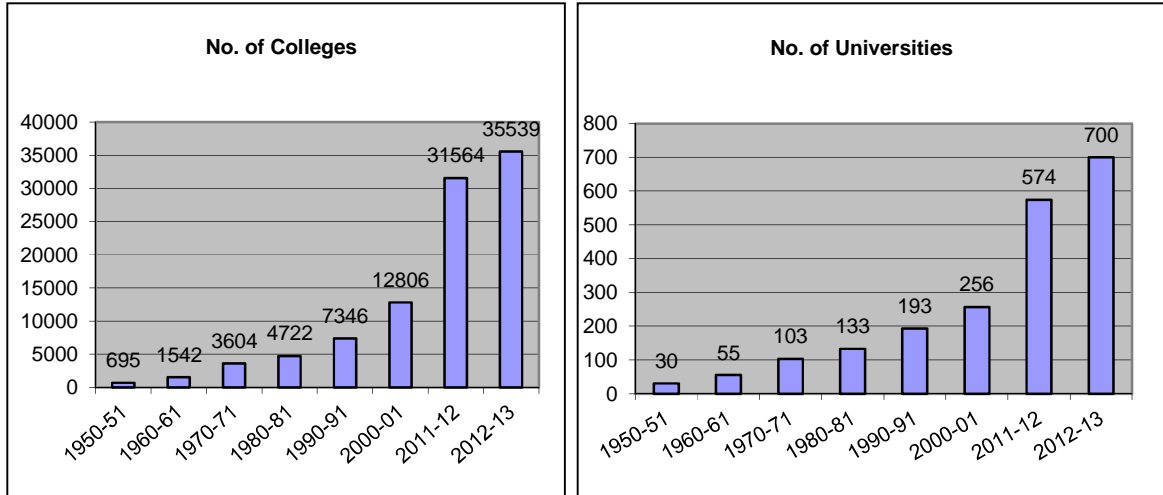


Fig. 3: Higher Education Institutions in India
 (Source: UGC Higher Education at a Glance - June, 2013)

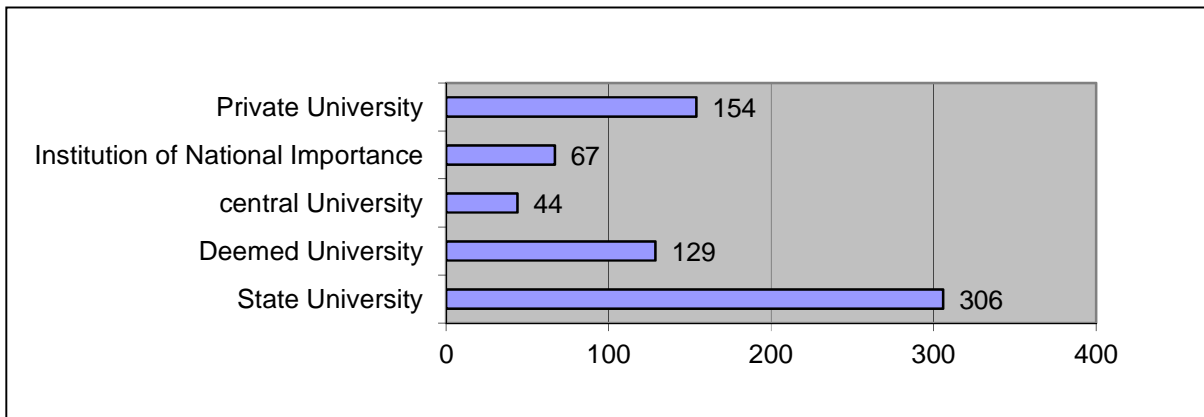


Fig. 4: Break up of HEIs (Source: UGC Higher Education at a Glance - June, 2013)

Types of Colleges in Haryana (Source: Annual Status of Higher Education of States and UTs in India, pp. 69, Nov.2013)

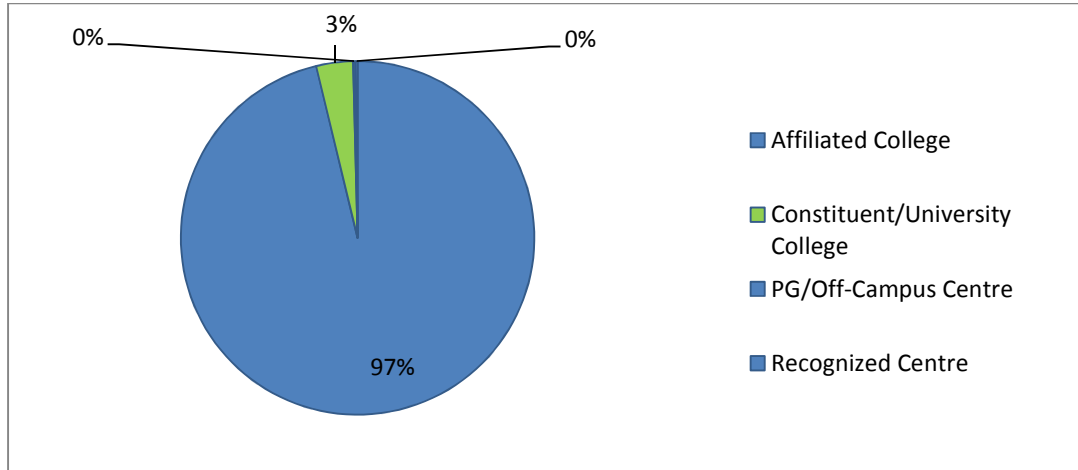


Table 1. Education Infrastructure in Haryana (Source: Annual Status of Higher Education of States and UTs in India, pp. 69, Nov.2013)

Indicators	Colleges	Stand alone Institutions
Total No. of colleges/ institutions	1054	322
Colleges per lakh population (18-23 yrs)	33	-
Average enrollment per college/ institution	766	755
Total estimated enrolment (Lakhs)	7.09	2.43