

Importance of undergraduate training to produce useful industry resources

Abstract

Training needs in any degree program is a must to produce employable graduates.

It was observed that there were plenty of job vacancies in the market with an equally good number of graduates unemployed. The industry lamented of the manpower being incompetent and preferred recruiting expensive expatriates over fresh graduates, for the fear of losing clients due to some error caused by an unskilled worker. The problem identified here was the lack of proper job-oriented training. This report tries to study ways to circumvent this problem by taking a look at the Jawahar Knowledge Centers (JKC) model which has done commendable work to answer the call of unskilled graduates. It has shown institutes that have provided training to students have shown best on-campus recruitments. The report concludes by stressing the need of vocational training for all undergraduate students.

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1. Introduction

1.1 Rationale

Internship in the final year of a degree program is an important way of linking theory with practice and is essential for the metamorphosis of an undergraduate student to an industry employable candidate. All degree programs should offer a work placement opportunity which would be assessed as part of a student's curriculum.

1.2 Background information

Corporate heads complained about fresh engineering graduates with high academic scores joining software industries but could not meet the industry expectations. This put forward the need to re-invent the education process. (Jawahar Knowledge Centers Campus Placement Mission 4)

1.3 Aims and objectives

- i. A collaboration between corporate heads and academician to design curriculum based on industry requirements.
- ii. Opportunity for students to work on live projects that can help them in implementing theory into practice. (Jawahar Knowledge Centers Campus Placement Mission 16)
- iii. There must be marks assigned to internship projects. And constructive criticism should be made by the examiners during viva to evaluate the students' effort during the project.

2. Study

2.1 Background

A big foot has been put forward by the Andhra Pradesh government (India) and has shown commendable result in its initiative to empower the country with employable engineers. They have launched JKC in which the academia, government and industry have collaborated to work towards a single goal of bridging the gap between industry and institute. JKC offers students with good academics an opportunity to work on live projects. These projects are assigned by the government or industry and would bear significance to the society. (Institute for electronic governance)

2.2 Statistical analysis of students recruitment

In the year 2004-05 JKC enrolled 1,066 candidates from 102 engineering college and trained them at 32 JKC centers. A few candidates were absorbed by the MNC and a major chunk joined Institute of Electronic Governance (IEG) and thus 100 % placement was achieved. (Jawahar Knowledge Centers Campus Placement Mission 2) A sharp increase in placements was observed in a short span of six months; industry that complained for the lack of trained professionals and recruited only 117 candidates recruited 4,350 candidates and were satisfied by their performance. (Jawahar Knowledge Centers Campus Placement Mission 6)

The table below depicts a clear picture of how the institutes witnessed a sharp increase in recruitments from the year 2005-2007. (Jawahar Knowledge Centers Campus Placement Mission 7)

Table: 1 (Jawahar Knowledge Centers Campus Placement Mission 7)

	IT Company	2004-05	2005-06	2006-07	Total
1	Satyam	86	483	672	1241
2	IBM	22	151	725	898
3	Infosys	29	154	679	862
4	Wipro	--	406	474	880
5	CTS (Cognizant)	--	--	192	192
6	TCS	35	49	--	84
7	App Labs	--	39	--	39
8	Intelli	20	2	--	22
9	Value labs	6	14	--	20
10	Tech Mahindra	--	--	16	16
11	Vertex	15	--	--	15
12	TIPTON	--	12	--	12
13	CSC	--	12	--	12
14	ADP	1	11	--	12
15	CSSI	4	6	--	10
16	CA	--	10	--	10

17	Apps Associates	--	8	--	8
18	Kanbay	7	--	--	7
19	HCL	6	--	--	6
20	Cadsys	2	--	--	2
21	Synopsis	1	--	--	1
22	HSBC	1	--	--	1
Total		235	1357	2758	4350

2.2 Statistical analysis of increased number of institutes registered under JKC

It was observed that as the job placements got better, the number of institutes registered at JKC increased and this led to the need for opening more JKC centres in order to cater to the rising demand of students. This is shown in the table below:

Table: 2 (Jawahar Knowledge Centers Campus Placement Mission 10)

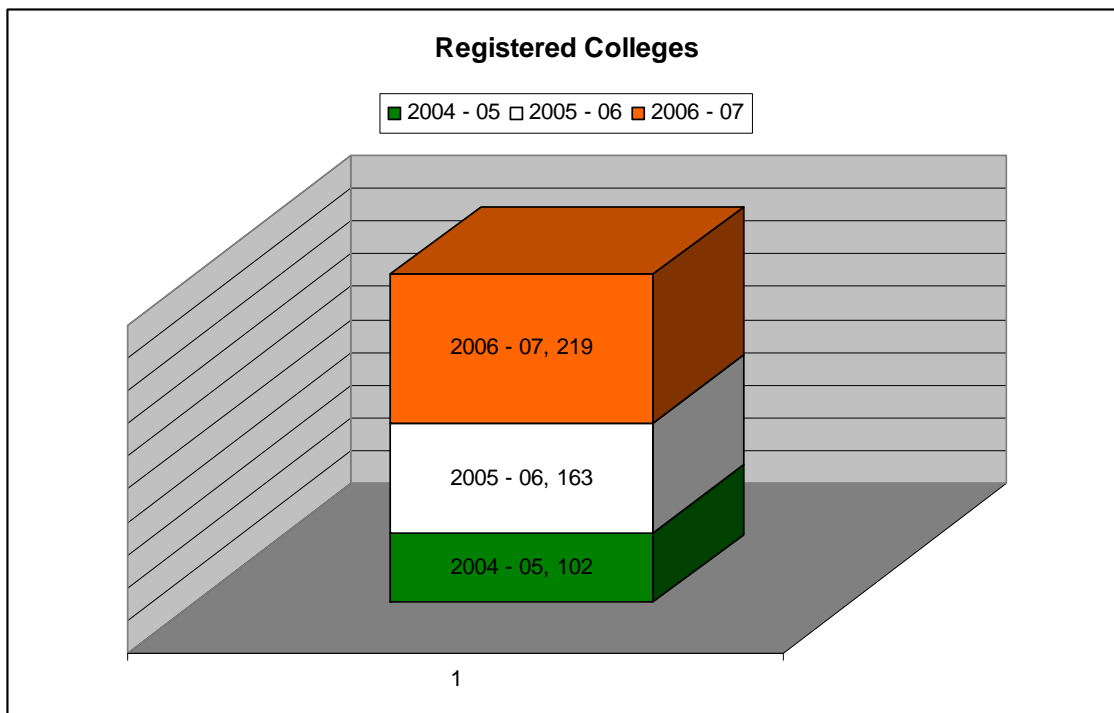
Sr. no.	Parameters	Count in the year 2005	Count in the year 2006
1.	No. of registered colleges	102	222
2.	No. of candidates	1,066	20,000
3.	No. of branches offered	4	16
4.	No. of universities	1	9

5.	No. of JKC established	32	43
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Table: 3 (Jawahar Knowledge Centers Campus Placement Mission 14)

Registered Colleges			
Sr. No.	Academic Year	Registered Colleges	% of growth
1	2004 - 05	102	
2	2005 - 06	163	59.8%
3	2006 - 07	219	34.3%

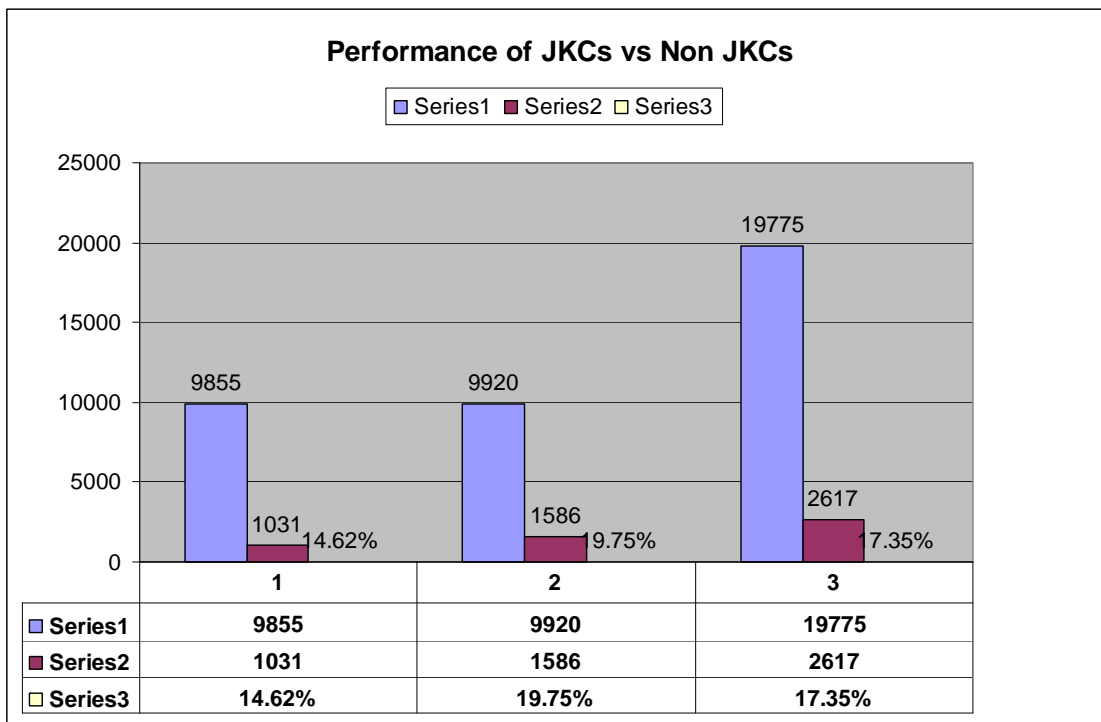
Graph: 1. (Jawahar Knowledge Centers Campus Placement Mission 14)



2.3 Employment rate improved due to JKC training

Another survey confirmed that a huge number of employed students were JKC products

Graph: 2. (Jawahar Knowledge Centers Campus Placement Mission 13)



3. Discussion

Traditionally the institutes never participated in providing training assistance to students. Students could join companies for internship only by using their contacts. This class of interns could gain only certificates from the corporate czars but could hardly meet their training needs. The students rarely got to work on live projects and would waste time doing menial jobs which did not involve any sort of programming. (Dua)

Training at JKC involved students in real-live projects. They went through a complete make-over with technical and behavioral skills training which nurtured them into good team-workers, enhancing their problem solving, oral and written communication skills. (Jawahar Knowledge Centers Campus Placement Mission 16)

4. Objectives of undergraduate training

- i. Every under graduate student should get the opportunity to work as an intern during his final year in order to adapt easily to its professional role.
- ii. Students should be groomed in a way to be critical thinkers and should be given practical problems to be solved in multiple ways based on the available infrastructure.
- iii. Technical students also need to pay attention to develop writing and communication skills as otherwise they fail to produce correct SOP's (standard operating procedures) and fall back upon effective project presentation to the client resulting in a major set back to the company.
- iv. Graduate students experience with live projects can help them in creative thinking and producing innovative technology, it also gives an insight on what technology students would like to work in the future.
- v. Stipend provided to students should be in accordance with the educational profile of the student and the cost of living in that country.

5. Conclusion

Witnessing the success story of Andhra Pradesh all graduate students should be given training assistance to cut short the distance between campus and placements.

6. Recommendations

- i. USA is the leader of information and technology and a radical new approach of improvising the Indian education system by meeting a students training needs can bring as us at par with the leader (Dua) and this aim is essential to improve our socio-economic status. Academia and industry need to work hand-in-hand to answer the call of graduate unemployed. This can be done by the academicians and corporate leaders coming together to design vocationally oriented courses and these course can be conducted in college premises with frequent visits to the industry or through knowledge centers like JKC.
- ii. Not only engineering graduates but graduates from other non-technical allied disciplines also show a striking discrepancy to the industry demands. Government should design vocational courses based on the need of the locality where the institute is situated. For instance in a place well-known for its scenic beauty students must be encouraged to take up courses related to tourism or a place famous for horticulture produce should offer courses on horticulture, winemaking and growing of exotic plants. (Chhapia 1)
- iii. Providing teachers training to keep them abreast with the latest development in technology and improve their mentoring skills.

7. Works cited

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