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# Perceptual Chasm Between Industry and Academic Leaders on the Quality of Higher Education

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# **Academic Leadership Journal**

#### INTRODUCTION

In the context of the Information Technology Revolution, Communication Explosion, the Knowledge Economy and Globalization, India's production of Professionals is phenomenal. With over 300 Universities and 15,600 Colleges spewing out 2.5 million graduates each year, in terms of the volume of production India trails behind only the US and recently China. Each year India produces 350,000 Engineers, twice the number produced by the US. A recent evaluation of Universities and Research Institutes all over the world, conducted by a Shanghai university, has not a single Indian University in the world's top 300 – China has six.

Within a context of Higher Education gaining an international dimension, Universities and Higher Education Institutions are expected to be sensitive to Local, National and Global expectations. In short, Leaders of Universities and Higher Education Institutions are expected to play a very different, dynamic, role than Universities of twentieth Century in India. UGC grants many Higher Education Institutions the status of Deemed Universities. Universities and Deemed Universities are increasing student intake, course offerings, partnerships, non-traditional modes of learning, flexible lifelong learning initiatives etc. In the case of affiliating Universities, their role in promoting the concept of academic autonomy for colleges and in providing academic leadership for Quality enhancement is being emphasized.

The various dimensions of changing conditions and emerging trends discussed above – starting from 'mass higher education of comparable quality' to 'new models of management and performance evaluation'- have brought both quality and standards of higher education to the forefront. The need to move from 'ensuring minimum Quality & Standards' towards 'assuring higher Quality & Standards' is apparent. Today, performance evaluation, accountability and higher standards have become watchwords in any discussion on revamping Higher Education.

At this juncture, India's burning issue is not that of lack of talent pool, but the lack of talent pool which is on par with quality of world class and employable. Industry Leaders presume that only 15% of people coming out of Indian colleges are employable. The rest are branded 'not employable'. Again, not for the lack of theoretical knowledge but for the lack of skills and attitude necessary for doing the job successfully. This is truly a challenge as well as a social responsibility. The Industry Leaders are caught in a pincer between rising employment costs on one hand and a 30% rate of attrition on the other. While the need of the hour is to produce employable and quality manpower, it may not be fair to fully transfer this responsibility to the Industry Leaders; there must be some share of this responsibility owned by the institutions producing talent, as well.

Perceptions of the role of the University and Higher Education Institution had also changed by then. It is expected that Academic Leaders be directly involved in enhancement of Quality of Higher Education and the transformation of society and its economic development through partnership activities and

University-Industry linkages. In the academic world Quality assessment has traditionally assumed two apparently contradictory objectives: Quality improvement and accountability. Universities mostly emphasise quality improvement, which has been a concern for higher education institutions since the Middle Ages while the government pays special attention to accountability, aiming at guaranteeing the quality of the services provided to society by Higher Education Institutions. Quality has become the defining element of Higher Education in the 21st Century.

Hitherto only the Academic Leaders are playing the vital roles in Quality Assessment and Quality Enhancement through Quality Assessment bodies like National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA). The perceptions of Academic Leaders on Criteria for Quality of Students, Faculty and Higher Education Institutions are prevailing in the process of Quality Assessment of Higher Education. However the role of Industry Leaders is very much limited in the Quality Assessment Process and their perceptions on the criteria for the Quality of Students, Faculty and Higher Education Institutions is not considered.

At this juncture, the study of perceptual difference between Academic and Industry Leaders on the Quality of Higher Education is highly relevant and significant. Hence it is our objective is to study the Perception Gap between the Academic Leaders, the Professors and Industry Leaders on Criteria for Quality of Higher Education in general and Quality of Students and Faculty in particular

### LITERATURE SURVEY

Quality Assessment in Higher Education is of global interest; government and public demand for accountability from higher education institutions has steadily increased over the past decade 1 (Brennan, Fedrowitz, Huber, & Shah, 1999). The need for ensuring the validity and utility of the assessment process has also increased. To be useful, the assessment must meet the needs of the people whom it is intended to benefit and aid the evaluated institution to make improvements. Quality assessment is frequently undertaken in response to external authorities who expect clear, ratified criteria to be used in the accountability process. If the assessment is to be beneficial, however, change must be effected within the institution. This means that administrators, faculty members, and students also need an understanding of the criteria that can guide and facilitate improvements in the way they function.

Diana Green2 defined the Quality of Higher Education as "Producing Graduates to meet the Human Resources needs of an Organization in the Business, Industrial and Service Sectors". Quality of the product or service is measured in terms of its conformation to the specification. The definition of Quality adopted by most analysts and policy makers in Higher Education is that of Fitness for Purpose. Definition of Quality varies, and to some extent, reflects different perspectives of the individual and society. However, because different types of stakeholders in higher education the public, administration, faculty, or students have their own perspectives and goals, they assign different values to criteria or specification for quality.

Several researchers have investigated the criteria for Quality of Higher Education based on the perceptions of stakeholders namely Public, administration, faculty, or student. The public wants students to graduate with general abilities and emphasizes criteria such as communication skills (Cave & Hanney, 1992)3. University administrators are expected to show that resources are being used efficiently and effectively; for them, student completion of program requirements is an important

criterion (Nadeau, Donald, & Konrad, 1992)4. Faculty view the primary obligation of the university to students to be the development of intellectual independence (Baird, 1988)5 and hence focus on criteria such as the ability to think critically (Barnett, 1988; Trice & Dey, 1997)6. Students, meanwhile, are increasingly preoccupied with career concerns; they value criteria such as the ability to get a job (Dey, Astin, & Korn, 1991)7. The most common approaches to quality assessment are based on reputation and resources (Astin, 1985)8. Reputation is a global assessment of the perceived status or excellence of an institution or program, typically measured by asking knowledgeable experts to rate the institution or program. For example, presidents of research universities might rate other research universities for excellence (Cave & Hanney, 1992)9. The resource approach to quality uses input measures of faculty and student quality and physical and fis

cal resources (endowments, per-student expenditures. Within the resource approach, one of the most frequently used measures of quality is the academic ability of students at entry to college or university. A third approach uses performance indicators or global outputs to define quality indices such as program or degree completion rates, the proportion of undergraduates admitted to graduate education, or alumni satisfaction ratings. The flaw in these approaches is that they do not suggest how improvements in quality could be made. Astin recommended that quality be considered in terms of talent development. The criteria for quality in Astin's approach are grounded on an institution's ability to affect its students and faculty favourably. Students are a central focus in assessments of educational quality. What is less frequently acknowledged is that they are also major stake holders in Higher Education

Many years quality criteria have reflected administrators' or faculty priorities. As both the subjects of assessment and stakeholders, Janet G. Donald & D. Brian Denison10 argued that students and their perceptions of quality criteria need to be incorporated into the assessment process. Higher Education Institutions with the greatest educational impact are those with clear and consistent educational goals that are shared by faculty and students (Chickering & Reisser, 1993; Schroeder & Hurst, 1996)11. The stakeholders were governors of university and college boards, administrators, faculty, students, and members of the larger community. They independently identified criteria of quality in universities and colleges that they considered to be important, then verified the criteria over three rounds of a Delphi procedure (Linstone & Turoff, 1975)12. Higher Education Institutions with the greatest educational impact are those with clear and consistent educational goals that are shared by faculty and students.

To date , the perceptions of the major stakeholder "Industry" on the quality criteria of students(out put) and faculty (input) is ignored and left unaddressed. Hence we sought to determine the perception of Faculty and Industry on the criteria for both the Quality of Students and Faculty. The Perception Gap between Academic Leaders and Industry Leaders is sought to be identified on criteria / factors for quality of Students such as communication skills, academic performance, generic skills, learning skills, social responsibility, employment competence and academic preparedness. It is also sought to determine the perception gap between faculty and Industry on criteria / factors for quality of faculty such as presentation skills, academic competence, interpersonal skills and team bonding skills. We sought to determine the effects of gender, Marital Status Education and Experience on Industry perceptions on students' quality

**METHODOLOGY** 

SAMPLE

A sample of 100 persons from Industry and 201 persons from Higher Education Institutions such as Engineering and Management Institutions, affiliated to Anna University, Chennai were chosen for the study. 63 % of Industry persons were from IT Industries and 37 % from Non IT Industries. Male and female form 78% and 22% respectively. 49 % of the Industrial Respondents had less than 5 years of Experience and the remaining 51 % had more than 5 years of Experience in the Industry. Married people were 43% and the unmarried people from the Industry were 57%.

Among the 201 Faculty members, 52 % were male and 48% were female. 22 % of faculty were from senior positions and 78 % were from Junior positions. 60% of Faculty were married and 40 % were unmarried. With the combination of the above, the samples had been chosen for the study.

### PROCEDURE

A questionnaire with 25 criteria for the quality of Students and faculty was designed based on the recent research articles to examine the perception of criteria for the quality of Students and Faculty. The questionnaire was administered to 50 faculty members and 10 Industry persons as a pilot study. After conducting the validity test and the factor analysis, the questionnaire had been redesigned with 23 criteria for the quality of Students and 18 criteria for the quality of faculty. The validated and redesigned questionnaire was administered to 201 faculty from 5 different Engineering & Management Institutions in person. The Questionnaire was also mailed to 200 Industrial persons and received 100 responses from both IT and Non It Industries. Faculty and Industry people were informed that their participation was being solicited to achieve a better understanding of the perception of the Industry and Faculty on Quality of Students and Faculty and to improve the Quality of Higher Education Institutions. In one section of the questionnaire, Faculty and Industry were presented with the set of 23 criteria for Quality of Students and in another section with the set of 18 criteria for the quality of faculty. Faculty and Industry were asked to use a 5-point response scale (1 = not at all important, 2 = somewhat important, 3 = important, 4 = quite important, 5 = extremely important) to indicate how important they felt each criterion was for evaluating the quality of a student and faculty. Factor analysis and the reliability test were conducted on the collected data and the tables were formulated.

# TABLE 1

Criteria for Quality of Students according to Industry Perception Reliability Test: Alpha = 0.832 KMO = 0.732

# FACTOR ANALYSIS

S.No	Questionnaire	Factor	Loading	Alpha	Mean	Variance		
COMMUNICATION SKILLS								
20	Written Communication Skills	I	0.789 R		4.13	0.723		
21	Presentation skills	I	0.742 R	0.781				
22	Oral Communication skills	I	0.818 R	1				
ACADEMIC PERFORMANCE								
7	Openness and Flexibility	II	0.573 R		0.37			
12	Completion of Program requirements	II	0.712 R	0.606		0.85		
13	Expertise at the end of the program	II	0.714 R					
	GENERIO	C SKILL						
3	Basic Mathematical Competency	III	0.684 R					
6	Sense of Responsibility	III	0.757 R	0.594	4.017	0.778		
8	Ability to interact with others	III	0.635 R					
LEARNING SKILLS								
9	Effective study skills & habits	IV	0.487 R	0.62	3.86	0.881		
10	Moral & Ethical Reasoning	IV	0.555 R					
16	Commitment to lifelong learning	IV	0.686 R					
19	Ability to apply knowledge	IV	0.795 R					
	SOCIAL RES	PONSIB	ILITY					
17	Commitment to Physical Fitness	V	0.618 R	0.515	3.41	0.980		
23	Commitment to Social Concerns	V	0.763 R					
	EMPLOYMENT	COMPE	TENCE					
11	Personal Student Development	VI	0.411 R	0.687	4.00	0.725		
14	Ability to get a job	VI	0.846 R					
15	Performance on the job	VI	0.722					
ACADEMIC PREPAREDNESS								
01	Secondary School Preparation	VII	0.806 R	0.313	3.44	1.159		
02	Preparedness for a specific program	VII	0.675 R					
18	Leadership Skills	VII	0.407					
INTELLIGENCE								
04	Intelligence	VIII	0.576 R	0.542	4.01	0.80		
05	Commitment to Learning	VIII	0.447 R					

TABLE 2

Criteria for Quality of Faculty according to Industry Perception

Reliability Test: Alpha = 0.866 KMO = 0.808

# FACTOR ANALYSIS

S.No	Questionnaire	Factor	Loading	Alpha	Mean	Variance			
PRESENTATION SKILLS									
4	Presentation Skills	I	0.559						
5	Approachable by Students	I	0.663	0.676	4.128	0.703			
9	Leadership Skills	I	0.572 R	1					
15	Friendliness with Students	I	0.847 R	]					
	SOCIAL RESPONSIBILITY								
12	Commitment to Social Concerns	II	0.688 R						
16	Temperament	II	0.645 R	0.732	3.5	1.066			
17	Sense of Humour	II	0.488 R	1					
18	Commitment to Research	II	0.745 R	1					
ACADEMIC COMPETENCE									
1	Ability to Explain Clearly	III	0.643 R						
3	Depth of Knowledge	III	0.754 R	0.714	4.308	0.542			
8	Problem Solving Skills	III	0.549 R	]					
10	Commitment to Knowledge Updation	III	0.641 R						
	INTERPERSO	NAL SK	ILLS						
2	Ability to Encourage the students	IV	0.757 R						
11	Commitment to Ethical Values	IV	0.477 R	0.666	4.193	0.67			
14	Confidence	IV	0.593 R						
13	Enthusiasm	IV	0.536 R						
TEAM BONDING SKILLS									
06	Ability to use Computer & Technology	V	0.758 R	0.594	3.81	0.815			
07	Ability to work as a Team Member	V	0.735 R	]					

TABLE 3

Criteria for Quality of Students according to Faculty Perception

Reliability Test : Alpha = 0.873 KMO = 0.848

# FACTOR ANALYSIS

S.No	Questionnaire	Factor	Loading	Alpha	Mean	Variance		
ACADEMIC PERFORMANCE								
5	Commitment to Learning	I	0.500 R					
11	Personal Student Development	I	0.666 R	0.744	3.766	0.964		
12	Completion of Program requirements	I	0.763 R	]				
13	Expertise at the end of the program	I	0.673 R	]				
	SOCIAL R	ESPONSI	BILITY					
16	Commitment to Life Long Learning	II	0.654 R		3.641			
17	Commitment to Physical Fitness	II	0.581 R	0.622		1.115		
18	Leadership Skills	II	0.508 R	1				
23	Commitment to Social Concerns	II	0.657 R	]				
COMMUNICATION SKILLS								
20	Written communication skills	III	0.799 R			0.890		
21	Presentation skills	III	0.653 R	0.704	4.0			
22	Oral Communication skills	III	0.752 R	]				
LEARNING SKILLS								
4	Intelligence	IV	0.394 R		3.69			
7	Openness and Flexibility	IV	0.561 R	]				
8	Ability to interact with others	IV	0.740 R	0.7		0.986		
9	Effective study skills & habits	IV	0.560 R	1				
10	Moral & Ethical Reasoning	IV	0.529 R	1				
	ACADEMIC	PREPAR	EDNESS					
2	Preparedness for a specific Program	V	0.717 R					
6	Sense of Responsibility	V	0.718 R	0.577	3.862	0.832		
19	Ability to apply knowledge	V	0.504 R	1				
EMPLOYMENT COMPETENCE								
14	Ability to get a job	VI	0.761 R	0.590	4.152	0.995		
15	Performance on the job	VI	0.632 R	<u> </u>				
GENERIC SKILLS								
1	Secondary School Preparation	VII	0.757 R					
3	Basic Mathematical Competency	VII	0.689 R	0.475	3.652	1.152		

TABLE 4

Criteria for Quality of Staff according to Faculty Perception

Reliability Test: Alpha = 0.882 KMO = 0.866

#### FACTOR ANALYSIS

S.No	Questionnaire	Factor	Loading	Alpha	Mean	Variance		
ACADEMIC COMPETENCE								
1	Ability to Explain Clearly	I	0.717 R		4.151	0.830		
3	Depth of Knowledge	I	0.662 R					
4	Presentation Skills	I	0.698 R					
6	Ability to use Computer & Technology	I	0.512 R	0.796				
10	Commitment to Knowledge updation	I	0.574 R					
14	Confidence	I	0.548 R					
18	Commitment to research	I	0.575 R					
TEAM BONDING SKILLS								
7	Ability to work as a Team Member	II	0.614 R					
8	Problem Solving Skills	II	0.541 R					
9	Leadership Skills	II	0.415 R					
				0.795	3.79	1.015		
11	Commitment to Ethical Values	II	0.672 R					
12	Commitment to Social Concerns	II	0.769 R					
	INTERPERSO	NAL SK	ILLS					
2	Ability to Encourage the students	III	0.521 R					
5	Approachable by Students	III	0.775 R	0.678	3.9	0.8		
13	Enthusiasm	III	0.620 R					
PRESENTATION SKILLS								
15	Friendliness with Students	IV	0.759 R					
16	Temperament	IV	0.609 R	0.649	3.244	1.174		
17	Sense of Humor	IV	0.739 R					

#### **ANALYSIS & RESULTS**

Communication Skills, Academic Performance, Generic Skills, Learning Skills, Social Responsibility, Employment Competence and Academic Preparedness are found as the factors for the criteria for the quality of Students. The loading of the perceptions of Industry and faculty on the criteria for the quality of Students were calculated and tabulated. The relationship coefficient was determined (r = 0.425 & p = 0.342) and it was found that there is no relationship between the perceptions of Industry and Faculty. The Deviation between the Industry and Faculty was found to be very high on Generic Skills by 7% (p < 0.01 & t = 3.705). The major criterion is the Basic Mathematical Competency. Perceptions of Industry Leaders were higher than the Academic Leaders. The gap needs to be bridged to improve the employability of students. There is no gap between the perceptions Faculty and Industry on Communication Skills . However the perception of Faculty on Academic Preparedness is higher than the Industry by 8% (p < 0.01, t = 5.128). The perception gap between Industry and Faculty was on two factors Generic Skills and Academic Preparedness.

TABLE 5

PERCEPTIONS OF INDUSTRY AND FACULTY ON CRITERIA FOR QUALITY OF STUDENTS

Factors	Perception	ns of	Deviation	Relationship
ractors	Industry	Faculty	(D)	Coefficient (r)
COMMUNICATION SKILLS	82.8667	79.9005	2.96617	
ACADEMIC PERFORMANCE	74	75.3234	1.32338	
GENERIC SKILLS	80.3333	73.0348	7.29851	
LEARNING SKILLS	77.2	73.7512	3.44876	0.42522
SOCIAL RESPONSIBILITY	68.1	72.8109	4.71095	B 1 0242
EMPLOYMENT COMPETENCE	80	83.0348	3.03483	P value = 0.342
ACADEMIC PREPAREDNESS	68.7333	77.2471	8.51376	

# PERCEPTION GAP BETWEEN INDUSTRY AND FACULTY ON CRITERIA FOR QUALITY OF STUDENTS

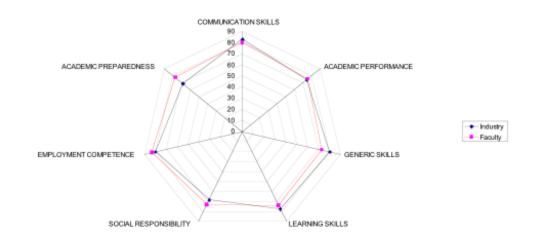


Figure 1

Presentation Skills, Academic Competence, Interpersonal Skills and Team Bonding Skills are found as the factors for the criteria for the quality of faculty. The loading of the perceptions of Industry and faculty on the criteria for the quality of Faculty were calculated and tabulated. The relationship coefficient was determined and it was found that there is no relationship between the perceptions of Industry and Faculty (r = 0.286, p = 0.714). The Deviation between the Industry and Faculty on Presentation Skills was found to be very high by 17% (p < 0.01, t = 9.487). It was also observed that on all factors the perceptions of Industry on criteria for quality of staff were than the faculty. The Gap between them was considerably higher on Interpersonal skills by 6% (p < 0.01, t = 3.76).

TABLE 6

#### PERCEPTIONS OF INDUSTRY AND FACULTY ON CRITERIA FOR OUALITY OF FACULTY

Factors	Perceptions of		Deviation	Relationship
Factors	Industry	Faculty	(D)	Coefficient (r)
PRESENTATION SKILLS	82.55	64.87562	17.67438	
ACADEMIC COMPETENCE	86.15	83.0135	3.136496	0.286258
INTERPERSONAL SKILLS	83.85	77.77778	6.072222	P value = 0.714
TEAM BONDING SKILLS	76.2	75.801	0.399005	

# PERCEPTION GAP BETWEEN INDUSTRY AND FACULTY ON CRITERIA FOR QUALITY OF FACULTY

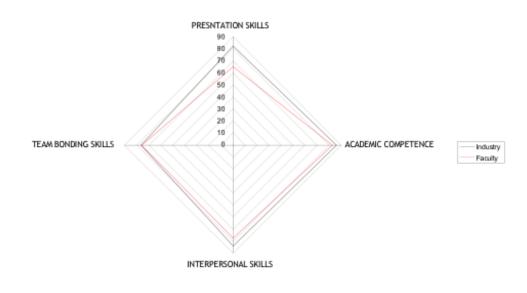


Figure 2

Regression Analysis was also conducted and it was observed that the perceptions on factor "Academic Performance" differed with age, gender, educational qualifications and experience of the Industry respondents. It was also observed that the perceptions on factor "Intelligence" varied with age, year of passing and experience. The perceptions on "Learning Skills" were different for the Industry respondents with different educational qualifications

#### LIMITATIONS

The samples were taken mostly from Engineering and Management Institutions and IT Industries. Extending the samples to Arts and Science Colleges, Leading Research Institutions and other professional colleges may yield better insight.

#### **FURTHER RESEARCH**

The results of this study suggest several avenues for further research. It may be extended to Arts and Science colleges and Leading research organisations. Differences in the perceptions of Industry on criteria for Quality of faculty and students signify a need for further exploration as they are the input and output for higher education. The study on Perceptions gap between Students and Industry & Alumni and Industry would be a great boon to improve the Quality of the Higher Education

### CONCLUSION

Investigations revealed that there was wide gap between the perceptions of Industry and Faculty on criteria for Quality of students especially on Generic Skills and Academic preparedness. The Gap was even wider on the criteria for quality of faculty especially on presentation skills of the faculty. The perception Gap between Industry and Faculty must be bridged to improve the employability of students and enhance the quality of Higher Education.

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#### **APPENDIX**

# (A) CRITERIA FOR EVALUATING QUALITY OF STUDENTS

- 1. Secondary School Preparation
- 2. Preparedness for a specific program
- 3. Basic Mathematical Competency
- 4. Intelligence
- 5. Commitment to Learning
- 6. Sense of Responsibility
- 7. Openness and Flexibility
- 8. Ability to interact with others
- 9. Effective study skills & habits
- 10. Moral & Ethical Reasoning
- 11. Personal Student Development
- 12. Completion of Program requirements
- 13. Expertise at the end of the program
- 14. Ability to get a job
- 15. Performance on the job
- 16. Commitment to lifelong learning
- 17. Commitment to Physical Fitness
- 18. Leadership Skills
- 19. Ability to apply knowledge
- 20. Written communication skills
- 21. Presentation skills
- 22. Oral Communication skills
- 23. Commitment to Social Concerns

### (B) CRITERIA FOR EVALUATING QUALITY OF STAFF

- 1. Ability to Explain Clearly
- 2. Ability to encourage the students
- 3. Depth of Knowledge
- 4. Presentation Skills
- 5. Approachable by Students

- 6. Ability to use Computer & Technology
- 7. Ability to work as a Team Member
- 8. Problem Solving Skills
- 9. Leadership Skills
- 10. Commitment to Knowledge updation
- 11. Commitment to Ethical Values
- 12. Commitment to Social Concerns
- 13. Enthusiasm
- 14. Confidence
- 15. Friendliness with Students
- 16. Temperament
- 17. Sense of Humour
- 18. Commitment to Research

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