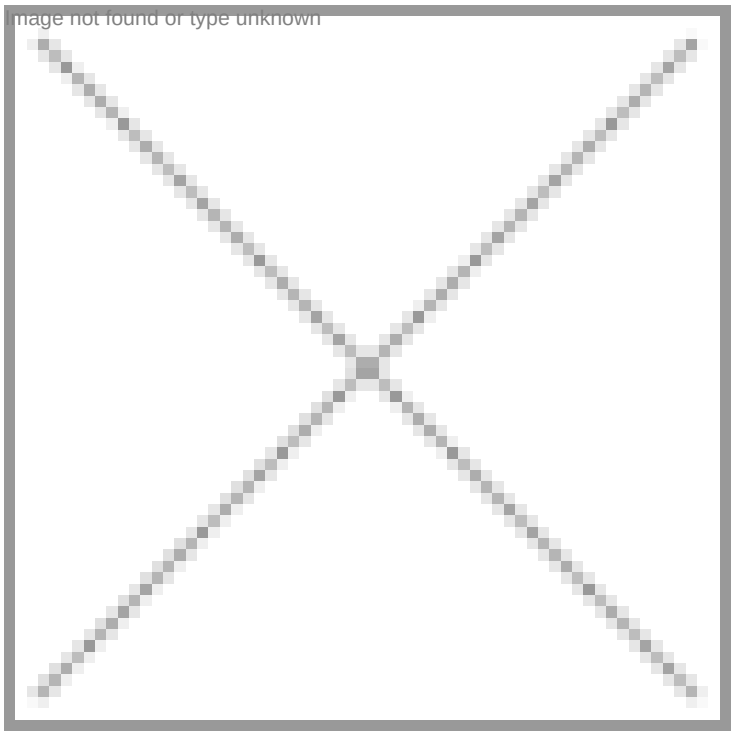
BioSpectrum the business of Bio & Health Sciences

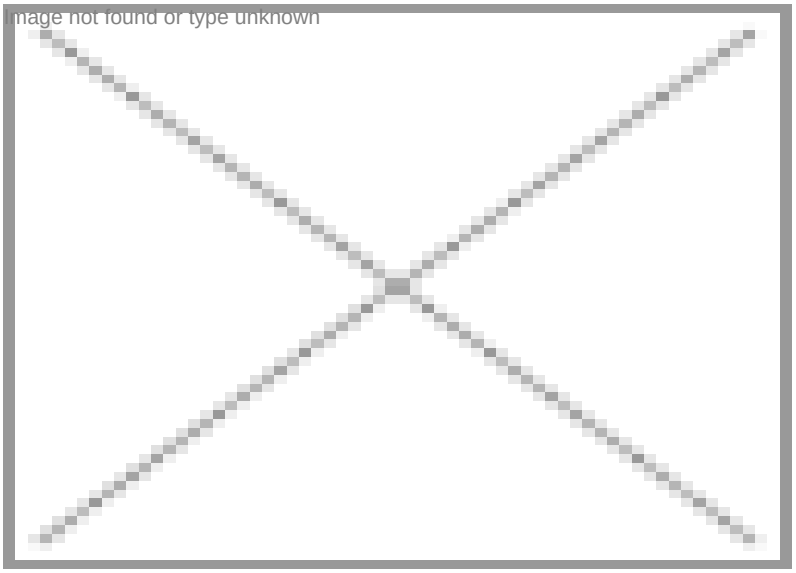
Bridging the qualitative talent gap

06 November 2007 | News



Bridging the qualitative talent gap

Leader Prospects India Pvt Ltd (formerly Nobby Nazareth Associates), is a premier HR consulting firm, with key focus on life sciences and the healthcare industry in India. Leader Prospects since 2001 has been adding value to the industry by constantly studying and analyzing current industry thinking, trends and norms. This year, it conducted a study called the Industry Integration Program (IIP 2007) to find out the ways of bridging the industry-academia gap in the Indian life sciences sector. Leader Prospects' study observed that besides the quantitative growth of campus talent, academia will have to focus on qualitative development of students in terms of the hands-on technical knowledge, adequate industry interface and soft skills training focused on personality development. This will be critical in accelerating campus hiring and thereby addressing a huge human resource challenge in the biotechnology sector. Excerpts of the IIP 2007 study:



Leader Prospects India conducted an annual orientation program that was focused on:

Technical insight-Getting students acquainted beyond theoretical and syllabi-based intelligence

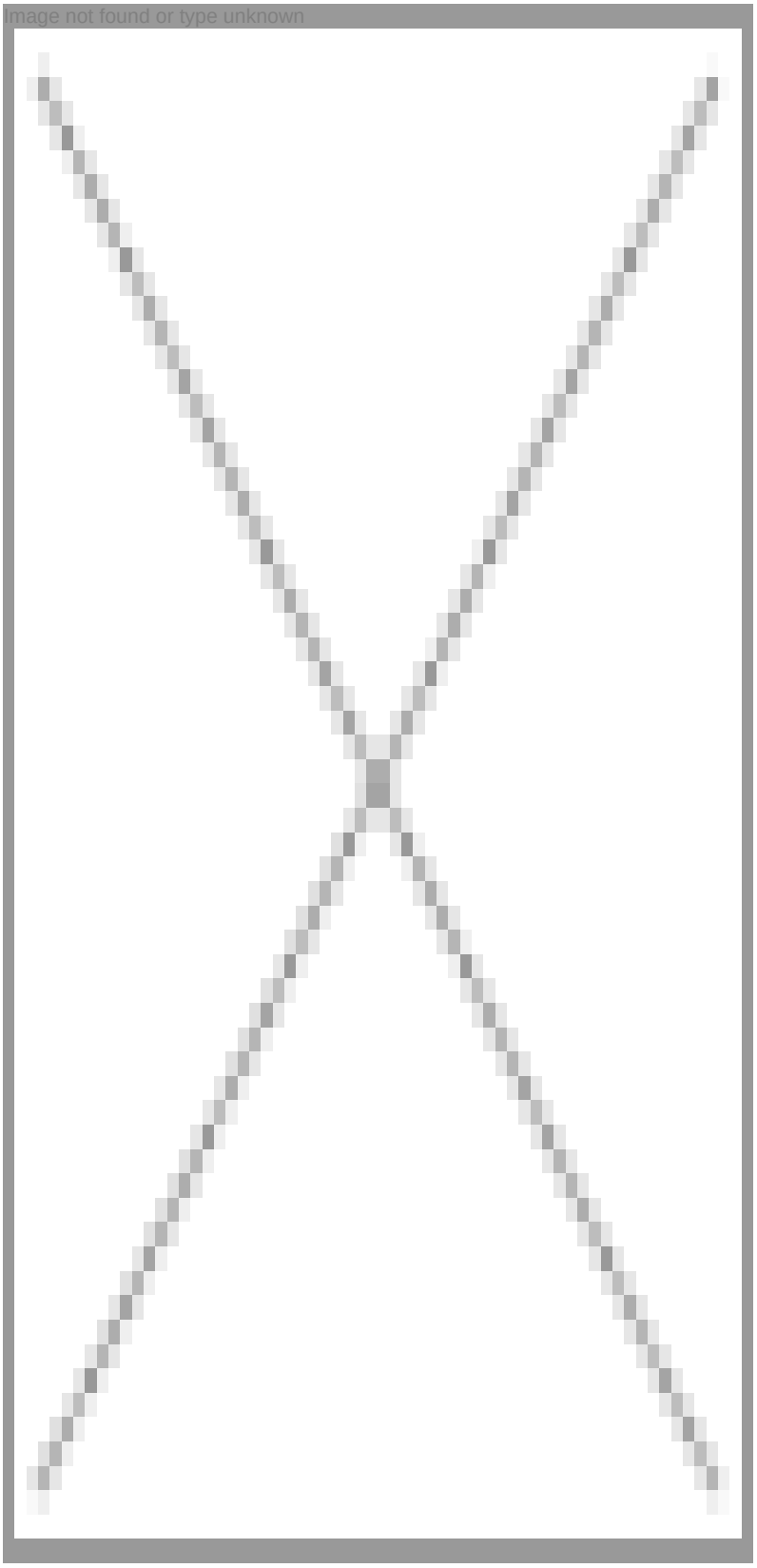
Industry interface-Acclimatizing students to corporate India through adequate industry interaction opportunities and visits

Soft skills development-Developing areas of personal development keeping the specific industry requirements in mind.

For this study, Leader Prospects identified students to be in three performance categories-above average, average and below average

In the experience of Leader Prospects, approximately 70 percent of students fall in the "average" category given the results of their respective university exams. The IIP was aimed at taking this "average" student and moving him/her up the value chain. The results of program is considered exceptional keeping in mind the impact it can have on developing biotech talent in India which is highly scarce.

Image not found or type unknown



Composition of IIP

Between June 2006 and May 2007, all of the above was incorporated and offered through the Industry Integration Program (IIP) structured as follows:

250 hours of technical training

150 hours of hands on hands-on laboratory training

75 hours of soft skills orientation

Exclusive and regular participation of four life science organizations (MNC and Indian)

Technical seminars, industrial visits, live projects and subject matter presentations

Based on the infrastructure, laboratory facilities and management interest and commitment, Garden City Group of Institutions was chosen for the IIP for the academic year 2006-2007.

From various MSc specializations within the college (microbiology, biotechnology, biochemistry and applied genetics), 25 out of 250 students in the above mentioned specializations were identified as the relevant sample size and type.

About 25 students under the average category score (40-60%) were selected through group discussions and personal interviews. Out of 25 students, five dropped out during the program on account of personal reasons and hence all graphical representations will show a sample size of 20.

The selection process was by and large similar to that followed in the industry in India, with an exception that Leader Prospects identified the students those who came under the "average" score category. The objective of doing this was to understand the impact of the IIP on an "average" performing student.

Technical tests: These were designed to assess the basic and fundamental knowledge of science, keeping in mind the general requirements of the biotech industry at the entry level (Duration: 90 minutes and Score: 100 marks). The tests were conducted in two stages: the first test conducted was the preliminary test which was also one of the parameters for selection of students and the second test was conducted at the end of the program, for final assessment.

Leader Prospects retained a specialized training firm, Aristogene Biosciences in Bangalore, to work with students to train them on hands-on methods of learning on relevant laboratory equipment.

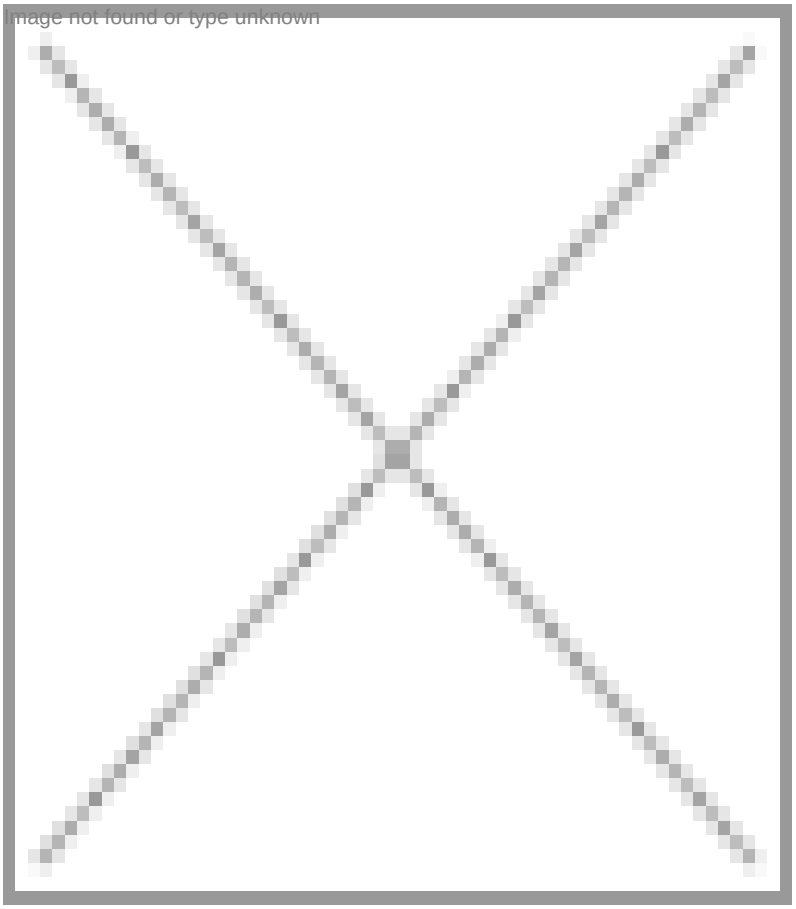
Soft skill tests: SHL, a globally recognized firm in the assessment of soft skills, was retained to do the assessment of the 25 students in two stages: first on selection and next at the stage of final assessment. This test has been recognized as a global standard for assessment, focused on pre-employment.

Essential competencies of soft skill test-Communication, teamwork and interpersonal skills, logical reasoning, creating and innovating, planning and organizing

Desirable competencies of soft skill test-Presenting and communicating information, writing and reporting, analyzing, adapting and responding to change, and coping with pressure and setbacks

Having put together the primary structure to the program, Leader Prospects designed the following process of execution:

Technical training: Students were offered orientation in basic sciences that were very fundamental to working on any research. Topics of relevance which are normally taught at the formative years of sciences were a part of this program.



Technical lectures and discussions: Through the program, more than 25 industry/domain expertise professionals from different specializations of science and companies were invited to interact with students.

Student presentation: The students were divided into groups and given selected topics like stem cell, gene therapy, biosensor, cancer cells, peptic ulcer.

The presentation required the students to extensively research and present facts on the subject matter, current research, application, setbacks, ethical issues, patents and related industry information. The study was focused on taking students beyond the subject matter into more relevant industry issues. Scientists from the industry specializing in research topics were invited to preside over the presentations, comment and judge the students on the same.

Hands-on laboratory training: Aristogene Biosciences offered students hands-on experience in the common laboratory techniques. The techniques included basic microbiology and recombinant DNA techniques, advance recombinant DNA technology and PCR, immuno techniques, and techniques in protein purification and analysis

Each student performed experiments and worked on each equipment related to the techniques. The objective of this was to familiarise students with laboratory equipment, processes and lab situations.

Industry partnership and interface: Leader Prospects retained four biotech firms and invited more than 25 industry experts to interact with the selected students during the year. The four biotech firms were identified and invited based on their status and size, while additional care was taken to identify them from cross-industry specializations, i.e bioagri, bioinformatics, biotechnology and diagnostics.

These firms allowed the students to visit their facility to understand not only the research done in the company but also topics like safety measure, corporate ethics and standards.

Soft skill support and development: Professional assistance from a qualified student counselor and trainer was retained in doing regular programs during the year with students. These programs were designed at assisting students through group as

well as individuated efforts.

The IIP focused on building those attributes of the personality which were highly pertinent to an industry environment. About 10 critical areas of development (essential and desirable) were identified with key thrust on communication skills, team work, logical reasoning and quality orientation. Regular programs at the campus included presentations, group work, discussion modules and simulation exercises in the form of personality trait identification, listening, observation, influence of experience, personal style of operating, self esteem and brand identity, team work, goal setting, self involvement and self exploration, aligning vision with reality, choices and changes, and group dynamics

Final outcome of IIP

Given the efficacy of the IIP conducted through the year, the students who otherwise are categorized into the 'average' category, showed exemplary results. About 50 percent of the students moved up into the 'above average' category (60 percent+) , though the other students also showed increase in their individual score.

It is observed that campus trainees below the industry acceptable standards are highly trainable and moldable. Assumption that students below the 60 percent category are not employable may not be entirely right. While the industry may not necessarily need to lower the standards of campus recruiting, the academia has a very large role in moving students in this category up the value chain.

It is observed that through the IIP the students influenced their technical score from a 10 percent increase to 50 percent. This percentage of increase is significantly impressive considering the score that qualifies students for selection and employment.

It is also possible that by this approach the availability of potentially good candidates can outrun the demand in the industry thus having a direct impact on the hiring cost, thereby retaining the competitive cost advantage of India globally.

Industry in India broadly identifies students from the campus at three levels: first, on the percentage score obtained at the university exams, second on the basis on technical assessments designed by individual companies and finally at the stage of personal interviews where students are identified on personal attributes.

The IIP increased the score of technical skills in 85 percent of the students and likewise in 60 percent of the students in the soft skills area; increasing the students chances of securing "above average" score in the technical tests of individual companies thereby improving their chances of a gainful employment.

Almost 50 percent of the students who were below the 50 percent marks category showed an improvement of 23-50 percent in the technical test performance through this program. Students who were identified in the "bottom of the pyramid" category of the "average" students showed significant improvement to move up into the 60+ percent category.

It is estimated that about 30 percent of the students post graduating during an academic year in India would fall into this category. Enhancements in the overall performance of such students through such IIPs could increase the overall scenario of bio talent in India.

The soft skills showed very significant increase in students' performance. 16 out of 20 students showed an increase of 23- 31 percent in positive personality changes.

Such enhancements in personalities help students in their overall performance, besides helping them at the stages of interviews and at the work place, especially when it comes to interpersonal skills, teamwork and communication.

Ironically it was also noticed that there was a decline in scores in the case of four students. It is believed that such self-help programs are aimed to work on the premise of "Help you help yourself" approach. Given the external environment in which the student is operating, a direct influence is created on the personality (positive or negative) and thereby impacting the overall rating of the individual.

On retrospection of personal assessment of these students, it was observed that students welcoming the need for change were found to have produced better results in the soft skills test.

However, in the final analysis, the program showing positive impact on more than 80 percent of the students was considered noteworthy.

Out of 20 students identified for the program, 10 scored over the industry acceptable mark of 60 percent in both technical skills and soft skills. The two attributes that are largely expected from campus recruits at the hiring stages.

IPP demonstrates that given the right orientation of technical knowledge, industry interface and soft skills, nearly 50 percent of the students in the "average" category and 35 percent in the overall campus landscape, can be made industry-ready.

Considering that India churns out 1,50,000 post graduates annually, the IIP or an equivalent of such programs can significantly increase the percentages of hirable students at the campus level in India. Going by the scale of improvement in students, it is estimated that more than 50 percent of students in the 'average' category can be made industry ready through such programs.

Sabita Rebecca

General Managerâ€“Life Sciences

Leader Prospects India Pvt Ltd