



ISSN : 2347-2251

**Indo-American Journal of
Pharma and Bio Sciences**



www.iajpb.com

iajpb.editor@gmail.com
editor@iajpb.com



Skill Development Training in National Academy of Construction

Participants Evaluation

Mr. K.R.Ramana,

Abstract: The Indian construction sector has seen steady expansion and made a significant contribution to the country's economic progress. It is the second-largest employment in the state, after agriculture, after the federal government. In order to keep up with demand, this industry relies heavily on the connections it has with other parts of the economy. It's difficult for businesses to thrive because of a lack of competent workers.

As a means of educating future construction workers, the NAC was established.. In order to meet its goal, NAC trains unemployed and unskilled people, as well as semi-skilled workers, in order to better meet the needs of the business. Training components include a job placement for learners who complete the programme successfully. The purpose of this study is to evaluate the effect of NAC's training. It therefore gives insights into the entire growth achieved by each learner after receiving instruction and also evaluates training efficacy.

Key Words: The construction industry, the workforce, training, and effectiveness.

I: INTRODUCTION

Background

Because of its large pool of skilled workers and an increasing awareness of their potential, India has shifted from a traditional to a knowledge-based economy. It was first thought that a country's large population would be a curse, but our understanding of this resource's capabilities and adaptability has convinced us otherwise. In spite of the government's best efforts, educational opportunities at all levels remain elusive. The increasing need for qualified and trained workers necessitates an upgrade in human resources. Only 10% of India's overall workforce obtains formal skills training, compared to a worldwide average of roughly 60%, according to the statistics. In addition, 80 percent of newcomers to the workforce have no access to any kind of skill million people by 2022. Automotive, transportation, warehousing and packaging;

travel and tourism; media and entertainment; healthcare services would take up the majority of these highly-skilled workers. The vast majority of these needs would be met by a staff that is well-versed in their respective fields of employment. The auto industry is expected to need 2.25 million skilled employees by 2015, while the banking and finance services sector will need 4.5-5 million, retail will need 4-5 million, and construction will need 13-15 million. In addition, 90% of the employment in India are "skill-based," while just 6% of the workforce in India obtains any vocational training at all. A closer look at industry demand and supply data shows that India must reevaluate its skill development initiatives in order to achieve a more equitable distribution of demand and supply of skilled workers.

Director, PG Studies, National Academy of Construction, Kondapur, Hyderabad 500081, Telangana State. Email: kr..ramana@gmail.com ,

Approximately 12 million individuals are added to the workforce in India each year, with a small percentage of them being highly trained workers (Mehrotra et al 2013). The bulk of those entering the workforce are in the last group. However, the country's present skill capacity is about 4 million people. Consequently, there is a need to increase the capacity for skilling and technical education to around 15 million people. This demographic group has a significant impact on the country's development. It is critical that this age group have enough skill training in order to be productive. As a consequence of the significant demand-supply mismatch, India has a big number of prospective learners. There is a pressing need for India to establish training centres around the nation that provide vocational, specialised, and sector-specific training and research. Priority should be given to improving the capabilities of the labour force, particularly in the most backward and disadvantaged parts of the country. One of the most important aspects of creating a knowledge-based economy is to make long-term investments in human capital development and skill development. This goal can only be achieved by designing and producing relevant training curricula and modules. One way to increase the productivity and efficacy of workers is via skill development. An essential part of extending the production potential horizon and increasing the economy's pace of development. Developing one's skills may also be seen as a means of enhancing one's self-

worth and social acceptability. If India wants to have a diverse and globally competitive economy in the future, it is imperative that the country's workforce be trained in the necessary skills. India's growth narrative will be defined by our capacity to invest in Skill development, which will be the critical component. The standard educational system may not be able to meet our future growth demands, therefore we must grasp the connection between education, training, and skill development. In today's world, it is essential that we keep up with the industry's ever-changing demands and nurture the industry in the same way as well. Because of this, we must bear the burden now and for future generations unless skill development becomes a national priority. Skills and Skill Development in Construction Sector

Various resources have come under increased pressure as the building industry has expanded rapidly as a result of investments and the public's desire for physical exercise. The construction industry is in need of both 'Skilled' and 'Unskilled' workers, and the need for these workers has only increased over the last decade. The construction industry's increasing need for workers is seen in Table 1. Even more surprising, the vast majority of construction jobs have been filled by unskilled workers, who are needed in practically every aspect of the industry. Due to a lack of vocational and other skill training institutes, the demand for workers in this sector is not being met by the supply.

Figure 1 depicts the breakdown of employment in India's construction and related industries.

Table 1: Skilled and Unskilled workforce in Construction Sector

Occupation	No. employed in 1995 (in '000s)	No. employed in 2005 (in '000s)
Engineers	687	822
Technicians and Foremen	359	573
Clerical	646	738
Skilled Workers	2241	3267
Unskilled Workers	10,670	25,600
Total Workers	14,600	31,000

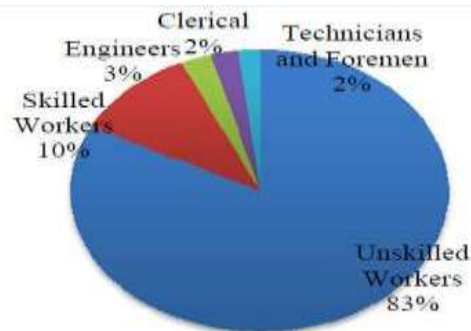
Source: NSDC (2012)

This article can be downloaded from <http://www.iajpb.com/currentissue.php>

Figure 1 Break-up of employed workforce in construction and allied sectors

Source: NSDC (2012)

A broad group of workers is needed to complete construction projects, hence a mix of skilled and



unskilled workers is needed (see Figure 3 for the range of profiles of persons employed at various levels in construction sector). Construction's unskilled labour has to be seen as people who are capable of working in the industry (functionally equipped to perform the job) rather than merely jobless persons who are looking for employment.

Essentially, this implies that these employees will need some kind of training in order to be productive in the building process. Investing in employee skill development is a key component in increasing the output of the workforce. People and communities may benefit from skill-building/skill development education that empowers them with the crucial inputs that matter in their employability and (life-time) earning potential. In another publication, Ramana and Ramakrishna established a conceptual framework for quantifying the impact of skill development training on participants (2013). As part of this paper, a research study will be conducted that focuses on a training institution's ability to help meet the needs of the construction and related industries' skill development.

This industry has come to symbolise progress. NSDC (2012) found that the sector grew at a CAGR of 11.1% between 2000 and 2010 as a result of major infrastructural investment and a quick surge in housing demand. As a manpower-intensive business, the need for engineers, as well as qualified and unskilled people, has skyrocketed. Supply and demand have not kept up with each other in all workforce categories, but labourers account for 90% of industrial personnel, making this deficit more evident. Although there are many talented employees in the construction industry, the shortage is most severe among those who specialise in numerous fields: from plumbing to masonry to fabrication to welding to drilling to carpentry to electrical wiring to bar bending to stone cutting. Some construction firms have been forced to bring in employees from China, Malaysia, and Indonesia because of labour shortages in the United States (Singh 2011). "Shuttering, carpentry, and plumbing have macro values of 18 percent and 29 percent, respectively, in our evaluation of skill shortages" (Swarup, 2012). For the eleventh five-year plan, the Working Group on Construction reported on construction employment in 2005 in its report.

Table 2 Employment structure of construction industry

Sector	No. of employees
Engineers	822000
Technicians and Foreman	573000
Clerical	738000
Skilled worker	3,267,000
Un-skilled worker	25,600,000

Source: GoI (2005)

For the 2010-11 fiscal year, skilled employees are needed in the amount of 34,72 million, but there are only 32,87 million of them available. The principal consequences of this scarcity of skills include inadequate quality, accidents and collapses even in projects under development, and delays in the completion of the projects. It is well-known by the government that PPPs are the most effective way to absorb the costs of skill-building initiatives (NSDC 2012). Various government programmes have led to a rise in local employment, which has made the young complacent, according to some experts (Luthra 2012). Workers are also believed to be unwilling to give up their wages to take courses or learn new skills, and many refuse to leave their families and homes to work on construction sites. A year ago (Natarajan), Sector-specific training centres, skilled trainers, and an industry-driven curriculum with the relevant methodology and pedagogy are needed in the nation to meet its demands (Prasad 2012). In addition, thorough evaluation and certification are required, as well as ongoing monitoring states. The demand for competent workers in the infrastructure business is outpacing the supply, making it difficult to keep up. Experts in the industry say we can overcome this by improving the skill set of our employees, and they firmly believe in training and development, which is why we've organised training sessions and seminars with a specific emphasis (Paramasivam 2012). As most construction work is subcontracted, some people believe that it's the contractor that hires and trains the skilled labourers. Due to shortages, industries are unable to meet their needs (Pithawala 2012). The industry, on the other hand, agrees that there is a severe lack of qualified personnel, and those that are available are in high demand, prompting an increase in their wages (Lalla 2012). However, enhancing the working and living circumstances of employees should be a priority in addition to expanding the workforce's education and training opportunities. The construction sector also feels that the nation has enough workers to

work on building projects, but these workers must be taught in construction skills, which is not occurring (Patel 2012). It is necessary for the construction industry to educate its own employees since even those who have graduated from ITI colleges lack specialised training in the sector's unique needs.

II: National Academy of Construction Training Using NAC as a Skill Development Center
Construction resources, technologies, and procedures are being developed by the National Academy of Construction (NAC), which has emerged as a leading authority in the field. The government of Andhra Pradesh (formerly) formed it, and it is officially recognised as a "Society" and a "Public Charitable" organisation. A single "roof" covers NAC's building training programmes. It is divided into eight sections, each representing a different facet of the building industry.

The Purpose and Goals India's economic and infrastructural demands need a highly sophisticated and competitive building industry. NAC training programmes include the following goals:

In order to guarantee that the work is done to the highest standards, stick to the timetable, and produce a long-lasting and beautiful structure;

India's construction industry and infrastructure development sector must be improved to international standards in order to compete on a level playing field.

Modest building methods, materials, and technology should be promoted for widespread use. •

Engineers, contractors, managers, and technicians should get training to improve their knowledge and abilities. Better living and working conditions, in accordance with all regulatory requirements, are essential if individuals are to enjoy a higher standard of living.

Methodology

By providing training courses in different construction trade skills and capacity development via seminars, workshops, conferences, symposia and trade fairs in order to fulfil the above mission purpose. It is the

primary focus of NAC's work that is training-based capacity building.

Additionally, NAC has around 1000 staff on its payroll, as well as guest teachers and research scientists who serve in crucial roles at various Andhra Pradesh (erstwhile) centres and are critical to moulding the career of the trainees. In order to keep their skills up to date, faculty members often contact with the industry and participate in Training of Trainers (TOT) programmes.

Structure of the NAC

For the purpose of conducting training and skill development, NAC was created as an independent entity. Andhra Pradesh's National Accreditation Council (NAC) has developed gradually since it began with only one centre and trained 150 technicians in five different trades each year (erstwhile). Since its inception in Andhra Pradesh, NAC has expanded its reach to include a central academy and training centres around the state. There are six regional centres at Guntur, Kadapa, Vishakhapatnam, Karimnagar, Rajahmundry and Hyderabad as part of this setup for ease of administration. Regional Directors are in charge of these centres, and they work with the centres in different districts. For improved coordination and quality control of training programmes, each district has assigned an assistant director, and a quality monitoring cell has also been formed. NAC has set up 140 centres in Andhra Pradesh's six regional centres, which are located in rural, semi-urban, and urban regions, in order to reach the target populations of school dropouts from rural, semi-urban, and metropolitan areas.

Continuing Education

There is a pressing need for construction professionals to enhance their abilities to match global standards in light of the increasing use of contemporary equipment and technology in the sector. In order to do this, NAC has opened three advanced skill training facilities in East Godavari District: Kadapa, Karimnagar, and Bommur. Construction trades instruction will have a home at these schools in the future. The Modular Employable Skills Scheme of the Government of India has registered NAC as a

Vocational Training Provider. More than a million people have gone through it, and it has helped them get ready for testing and certification (National Certificate in Modular Employable Skills) by independent assessors authorised by the Director General of Employment and Training at the Ministry for Labour, Employment and Training in India. The NAC's Training Programs

NAC trains urban poor and disadvantaged people in different building crafts and related activities so that they may become skilled technicians in the business. NAC offers training in a wide range of skilled trades, including the following:

- Masonry

Bending of the Bar

- Sanitation and Plumbing
- Electrical wiring in the home
- Decorating and Painting
- Carpentry for formwork
- Machine excavating operator
- Technical store clerk
- Supervisor of general operations
- Surveyor of the land
- Architecture of the Internet of Things

Making of Drapes

- Cabinetry Designing
 - Computer basics
 - A complete survey of all of the stations
- Aside from these, the NAC provides skilled workers with the following additional benefits:

Workers in the construction industry are being taught new skills by NAC. Even though construction workers in India's unorganised sector make up 93 percent of the employment, little attention has been paid to their wellbeing. NAC is thus committed to the well-being of unorganised employees in addition to offering training. Regulation of unorganised sector worker employment and working circumstances, as well as the provision of safety, security, and health via the organisation of numerous workshops and programmes, are all part of welfare promotion.

With regard to shaping people's lives and fostering social awareness, NAC has the social duty of offering job possibilities and commitments to the efficient execution of their technical skills. Aiming to promote the entire personality development of Adda workers, prisoners, the hearing impaired and destitute women, NAC has taken the initiative to use efficient techniques of education to enhance their overall personality development and help them succeed in all sectors of life.

Advisory, Purchasing, and Placement Services:

More than a few state governments have requested that NAC provide technical assistance and advisory services, either to duplicate NAC in their state or to carry out an assortment of programmes centred on construction-related activities. Many A.P. projects rely on it for 3rd-party QA/QC.

There are several ways in which the trainees are obtained. Self-help groups, state governments, private construction enterprises, or NAC district centres may nominate people for the programme. The eligibility requirements and admission exam are easily verified and passed upon mobilisation. NAC formed a placement cell to maintain in contact with the industry and place individuals who are trained and skilled for a variety of trade needs. In addition, this helps students connect with business and get a better grasp of the ever-changing needs of the workforce, which in turn aids in the development of training programmes.

III: NAC Training Participants Survey

Evaluation of Training effectiveness

To determine if the NAC's training programmes are indeed beneficial, an evaluation was conducted based on their significant role in developing the skills of unorganised and untrained individuals and their lengthy history of conducting such activities. For this objective, a survey of NAC training participants was to be carried out. Through a purposive-random selection procedure, a total of 50 individuals from Hyderabad were selected. In order to better understand the influence of NAC training programmes on participants' overall development and to assess their efficacy, a survey of NAC training participants was conducted.

The study's primary research hypothesis may be summarised as follows: There is a strong correlation between NAC's training and skill-building programmes and the growth of its students. The training and development of skills at NAC do not result in overall development. Second, H0: NAC's training and skill development programmes have shown to be successful. NAC's training and skill development efforts have been ineffective, according to hypothesis 1. The personal survey was conducted with the use of a thorough questionnaire. By adopting a simple and easy random sampling method, the actual survey was conducted on a sample of NAC training attendees. A total of ten questions were posed to the survey participants, the first of which asked for personal information, the influence of training on overall growth, and an assessment of the NAC training program's success. The following sections describe the survey participants, their replies, and the study's most significant conclusions. In order to get to know each other better, we After completing brainstorming conversations with topic and research specialists, the questionnaire was produced and finalised, and a pilot trial was also conducted to verify the questionnaire. It was in Hyderabad, India, when the final survey was conducted, with 50 volunteers who had received NAC training. Male participants made about 45 percent of the sample (the Male:Female ratio was 5:1). (42 out of 50 were married). The majority of

participants were between the ages of 30 and 40, indicating that they were at a relatively secure stage of life.

Figure 2 depicts the distribution of survey participants and

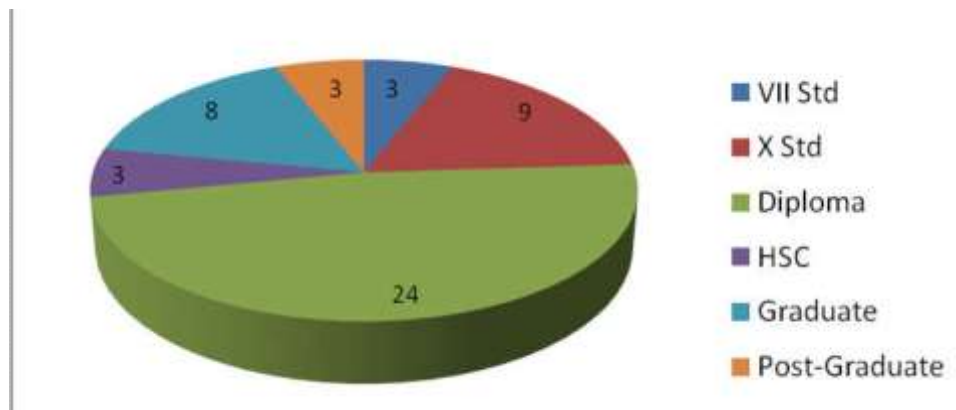
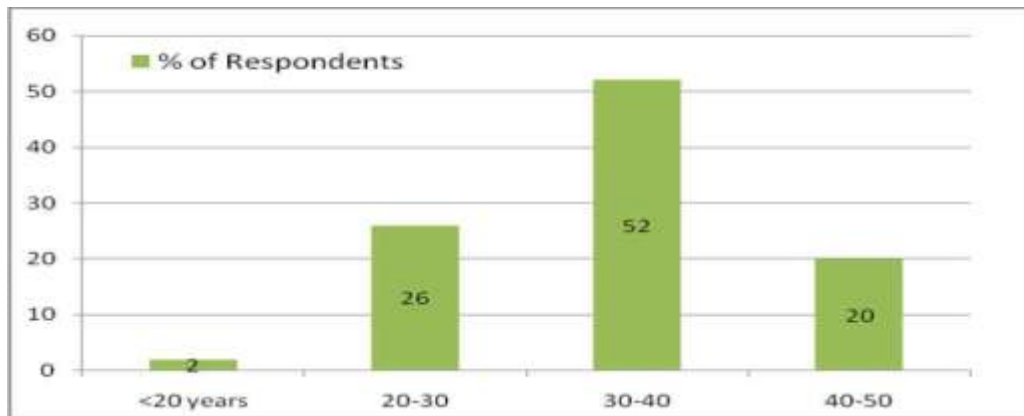
and responders by age. Participants tend to be young professionals who want to put their

Figure 3 Education levels of respondents

Table 3: Participants' evaluation of training effectiveness

newfound knowledge to good use in the workplace. **Figure 2 Age-wise distribution of respondents**

Figure 3 shows the education level of participants. Most of the respondents have passed diploma before NAC training program and were fully aware of its usefulness.



IV - CONCLUSIONS

For some time now, the Indian economy has been expanding and with it, so has the country's building sector. Skilled labour is an issue in Indian construction, as it is in many other industries. It was established to teach people in different construction trades, including those who are unemployed or under-skilled, so that they can meet industry needs, as well as those who are semi-skilled and need to improve their abilities. Such skill training programmes were evaluated in this research by conducting a survey of NAC's participants.

The survey confirms both of the assumptions that were put out before to conducting the study.

First and foremost, the NAC training programmes helped participants improve their overall growth.

This may be shown from the fact that

- a) the claimed increase in earnings after NAC training
- b) the stated increase in wealth, as measured by assets, after NAC instruction

As a second benefit, the NAC's educational initiatives have been successful in transferring knowledge.

In fact, more than 90% of subjects answered "yes" when asked whether there had been an improvement in several indicators. Research shows that not only has the trained skill force profited in terms of increased income and asset mobilisation, but it has also become more outwardly focused by looking at the possibilities and expanding their community. In order to better influence their own lives and the lives of others, the research also suggests that participants should work on developing their own internal capacity, including technical and IT abilities as well as soft skills and personality traits.

ACKNOWLEDGMENTS

The conceptual paper given at SKILLS 2013, the Second International Conference on "Life skills and livelihood skills, Challenges for International Cooperation," held from December 12-14, 2013, at NAC, Hyderabad, served as the basis for this study. Organised by REEDS with assistance from the governments of Andhra Pradesh and India, the conference took place.

Thank you to everyone of the conference attendees who took the time to discuss and provide feedback on our previous conceptual paper, which helped us refine it and get it ready for publication. They also want to thank the Director General of the National Academy of Construction in Hyderabad, for the encouragement and assistance he has given them.

REFERENCES

1. National Skill Development Policy, Government of India, New Delhi (available at: <http://www.skilldevelopment.gov.in/sites/default...> viewed on 6 November 2013), p. 1.
2. Construction World, January 2011, "Cracking the Skill Crunch" interview with K.D. Lalla (Page 70 to 88).
3. As part of "Cracking the Skill Crunch," Kavi Luthra was interviewed for an article in Construction World in January 2011. (Page 70 to 88)
4. Four authors, estimating India's skill gap on realistic basis for 2022 (Mehrotra, A. Gandhi and B. K. Sahoo, 2013), Economic and Political Weekly of India, XLVIII (13): 102-111, (March 2013)
5. "Cracking the Skill bottleneck," Construction World, January 2011, Natrajan, S. (2011) interview (Page 70 to 88)
6. National Skill Development Council (2012), "Human Resource and Skill Requirement in the Building and Real Estate Services Sector 2022," a report by the New Delhi-based council,
7. The interview was part of the "Cracking the Skill crunch" project. Constructors World, January/February 2011. (Page 70 to 88)

8. Construction World, January 2011 interview with Cyrus Pithawala as part of "Cracking the Skill bottleneck" (Page 70 to 88)
9. On "Cracking the Skill Crunch," Prasad was interviewed as part of "Cracking the Skill Crunch" (Page 70 to 88)
10. Skill Development in Construction: The Need and Evaluation, Paper delivered at SKILLS 2013, 2nd International Conference on Life Skills and Livelihood Skills, Challenges for International Cooperation, on December 12-14, 2013 at NAC, Hyderabad (Discussion paper on the Asia Pacific Dialogue.) 10. Government of India and Government of Andhra Pradesh (sponsored by REEDS)
11. As part of "Cracking the Skill bottleneck," Jaikant Singh was interviewed for the Construction World interview series (Page 70 to 88)
12. The interview was conducted as part of the "Cracking the Skill crunch" project. The January 2011 issue of Construction World (Page 70 to 88)