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Title of the Thesis : "Minority and Dalit Workers in Construction Industry - A study of
　　　　　　　　　　　　　 Competency Mapping Standards in NCR of Delhi"

ABSTRACT

The Thesis work is aimed to address the competency mapping problem of workers employed in Construction Industry which is the second largest employer after the Agriculture sector and where Dalit & Minority communities are employed in strength with other workers who are from the lower strata of the society. The key issues addressed in this thesis are **firstly** to define the parameters of Competency in each selected trade of **Bar-Bending**, **Shuttering Carpentry** and **Masonry** based on the market requirements and employability. The **second issue** is to evaluate the present level of Competency of Dalit & Minority communities with respect to OBCs and General category workers. The **third issue** is to quantify and define the gap considering the Behaviour, Attitude, Aptitude and Skills of a worker with respect to the desired standards of the industry. The **fourth issue** is to design the tools and work out a methodology of Competency Mapping of workers which can give the reasonably correct output as per the industry standards and subsequently validate the same by conducting survey and collecting field data from actual project sites.

The **First Chapter** gives the historical perspective and development of Construction industry through the ages thus establishing a link between past and present. This also gives the comparative effect on productivity between the work being done by traditional community workers and the use of present technology. The **Second Chapter** is the soul of the thesis where Competency model development has been explained from the basic parameters and concepts. Towards the end of the chapter process mapping of competencies have been conceptualized. The **Third Chapter** talks about the design and methods of Competency mapping. Here in this chapter the tools for assessment and mapping have been designed and accordingly due methodology has been worked out. The **Fourth Chapter** covers the data analysis and its interpretation to arrive on certain results. The competency gaps for workers from each community and the geographic divide has been taken in to account while carrying out the competency mapping analysis. The **Fifth Chapter** is Conclusion where outcomes have been derived from the analyzed results of chapter four. The thesis concludes with the fact that Competency mapping of any construction worker is not only the function of his skills but his attitude and aptitude also plays the major role and there is a need to seriously take these factors into account.

FINDINGS

The overall analysis of the competency parameters considered for mapping were analysed for the workers from each community group by averaging out the percentage gap of each parameter. The same has been shown graphically at **Figure-1.**
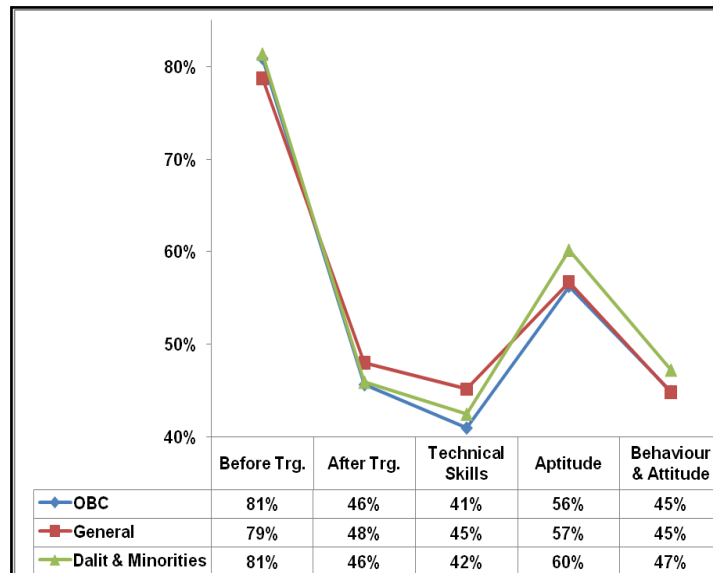
	Before Trg.	After Trg.	Technical Skills	Aptitude	Behaviour & Attitude
OBC	81%	46%	41%	56%	45%
General	79%	48%	45%	57%	45%
Dalit & Minorities	81%	46%	42%	60%	47%

Figure-1 : Overall Percentage Gap in Competency Analysis

The following are the overall final deductions from the graphic analysis:-

(a) There is a steep fall in percentage gap for all the three community groups in self-assessment **"Before training"** to **"After training"**. This drop is about 32 to 34% indicating the effect of training on confidence, performance & ability of workers from their own thinking .

(b) OBC community has the lowest percentage gap of 41% in **"Technical skills"** while General category has the highest gap of 45%, which means that OBC community is most competent in technical skills having 59% competency rating while General category is least competent in technical skills with 55% competency rating. However the difference between the two is not much which we can say minimal and therefore worker from all communities are more than 50% Technically skilled.

(c) Surprisingly all the three community groups were found lacking below 45% in **"Aptitude"** having percentage gap from 56% to 60%. This is a serious issue concerned with inherent talent to do the work thus affecting the quality of work.

(d) The **"Behavior and attitude"** of all the groups is on the positive side having percentage gap less than 50%.

The summary of the percentage gap analysis generally shows that Dalit & Minority Community lacks in Aptitude, Behaviour & Attitude while mediocre in Technical Skills. This reflects that effect of their social & family environment when compared to other two community groups creates barriers in performance which needs counseling.

Considering the overall Priority Range Matrix of workers from all the three trades the result outcome clearly shows that the workers need more counseling, education and support to build up their Aptitude and change their Behaviour and attitude towards the work. Their skills are often overshadowed by the Behaviours and approach thus not achieving the desired productivity. The outcome for training and counseling for the workers as per Priority Range Matrix places the results in order as **Priority-I** to Behaviour & Attitude, **Priority-II** to Aptitude and **Priority-III** to Technical Skills for the purpose of training and counseling.

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