Research Paper :

Illumination in office workstation

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ABSTRACT

The present study was undertaken with an objective to determine the illumination in office workstation. The structured schedule-cum-interview method was used to collect data and light intensity was measured by the Digital Luxmeter. Majority of the respondents belonged to age group of 45 years and above. Fifty seven respondents were post graduates, majority of the respondents belonged to the teaching community and seventy four per cent were having normal eye sight. Maximum number of the rooms had one door of 6x3 ft. Eighty two per cent respondents felt that the placement of controls was convenient, while 18 per cent voted as inconvenient. The amount of light at work place (t=64.45**), general light (t=67.18**) and artificial light (t=19.39**) were highly significant than the required standards. A negative significant correlation (r=0.29**) of age with illumination at work place implying that with increase in age the provision of light seems decreasing and correction are not significant.

Key words : Workstation light, General light and artificial light

Light is effective when it corresponds to the visual needs of the workers. Morris (1959) defined good lighting as "the right kind and right amount of light at the right place". Sustainable lighting helps to avoid accidents, supports to emotional and physical well being and contributes to security (Kwez and Enmarkar, 1998). Galsiu and Veitch (2006) shows artificial lighting is needed to provide task luminance and adequate visual environments to carry on the task when natural light is inadequate or not available. Good artificial illumination, prevents accidents, protects health by minimizing eyestrain and also contributes to the beauty in offices. Kiernan (1994) said that inadequate light leads to problems like lack of interest, failure to concentrate sleepiness and apparent laziness. Further eyestrain, headache, indigestion and irritability are the problems due to inadequate light. Hence, the present study was undertaken with an objective to determine the illumination in office work station.

METHODOLOGY

The study was conducted in Parbhani city of Maharashtra state during the year 2008-09. For the study, a sample one hundred and twenty five work place of subject from the Administrative Office, Collector Office, District Welfare Office, Zilha Parishad Office and Municipal Council Office etc. were randomly selected.

Digital Luxmeter was used to measure the intensity of illumination in offices. Illumination was recorded thrice in a day during working hours *i.e.* during morning 9-10 a.m., afternoon 12-1 p.m. and evening 4-5 p.m. Adequacy of light was determined by comparing the values of available light at workstation and office area with the recommended standards.

FINDINGS AND DISCUSSION

Table 1 deals with the general information of the subjects. It is evident from the table that majority of the respondents belonged to age group of 45 years and above, while 34 per cent belonged to age group of 25-45 years.

It is seen from the table that majority of the respondents belonged to the teaching community, whereas 37 per cent worked in the clerical cadre, and only eight per cent were in the administrative level. Regarding the eye sight of the respondents it is noted that seventy four per cent were having normal eye sight, while twenty six per cent were wearing bifocal lenses.

Table 1 : General information of the office workers	
Sr. No. Particulars	Frequency (%) N=100
1. Age (years)	
Age Group-I (25-45 year)	34
Age Group-II (45-above)	66
2. Type of work	
Clerical	37
Teaching and extension	55
Administration	8
3. Eye sight	
Normal	74
Bifocal	26