

Investigation of Attitude of Production Workers towards Job Rotation in Automotive Industry against the Background of Demographic Change

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Abstract : Due to the demographic change in Germany along with the declining birth rate and the increasing age of population, the share of older people in society is rising. This development is also reflected in the work force of German companies. Therefore companies should focus on improving ergonomics, especially in the area of age-related work design. Literature shows that studies on age-related work design have been carried out in the past, some of whose results have been put into practice. However, there is still a need for further research. One of the most important methods for taking into account the needs of an aging population is job rotation. This method aims at preventing or reducing health risks and inappropriate physical strain. It is conceived as a systematic change of workplaces within a group. Existing literature does not cover any methods for the investigation of the attitudes of employees towards job rotation. However, in order to evaluate job rotation, it is essential to have knowledge of the views of people towards rotation. In addition to an investigation of attitudes, the design of rotation plays a crucial role. The sequence of activities and the rotation frequency influence the worker and as well the work result. The evaluation of preliminary talks on the shop floor showed that team speakers and foremen share a common understanding of job rotation. In practice, different varieties of job rotation exist. One important aspect is the frequency of rotation. It is possible to rotate never, more than one time or even during every break, or more often than every break. It depends on the opportunity or possibility to rotate whenever workers want to rotate. From the preliminary talks some challenges can be derived. For example a rotation in the whole team is not possible, if a team member requires to be trained for a new task. In order to be able to determine the relation of the design and the attitude towards job rotation, a questionnaire is carried out in the vehicle manufacturing. The questionnaire will be employed to determine the different varieties of job rotation that exist in production, as well as the attitudes of workers towards those different frequencies of job rotation. In addition, younger and older employees will be compared with regard to their rotation frequency and their attitudes towards rotation. There are three kinds of age groups. Three questions are under examination. The first question is whether older employees rotate less frequently than younger employees. Also it is investigated to know whether the frequency of job rotation and the attitude towards the frequency of job rotation are interconnected. Moreover, the attitudes of the different age groups towards the frequency of rotation will be examined. Up to now 144 employees, all working in production, took part in the survey. 36.8 % were younger than thirty, 37.5 % were between thirty und forty-four and 25.7 % were above forty-five years old. The data shows no difference between the three age groups in relation to the frequency of job rotation ($N=139$, median=4, $\chi^2=.859$, $df=2$, $p=.651$). Most employees rotate between six and seven workplaces per day. In addition there is a statistically significant correlation between the frequency of job rotation and the attitude towards the frequency (Spearman-Rho: 2-sided=.008, correlation coefficient=.223). Less than four workplaces per day are not enough for the employees. The third question, which differences can be found between older and younger people who rotate in a different way and with different attitudes towards job rotation, cannot be possible answered. Till now the data shows that younger people would like to rotate very often. Regarding to older people no correlation can be found with acceptable significance. The results of the survey will be used to improve the current practice of job rotation. In addition, the discussions during the survey are expected to help sensitize the employees with respect to rotation issues, and to contribute to optimizing rotation by means of qualification and an improved design of job rotation. Together with the employees and the results of the survey there must be found standards which show how to rotate in an ergonomic way while consider the attitude towards job rotation.

Keywords : job rotation, age-related work design, questionnaire, automotive industry

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