

Competence development and informal learning on-the-job

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International research emphasizes the important role of on-the-job-training as a place of practical education for competence development and the continuous improvement of capabilities and skills. The workplace is relevant for competence development for two reasons: workplace requirements show, which competences are needed and which competences can be developed further on-the-job. The main characteristics of workplaces conducive to learning are complex cognitive activities as well as self-regulation and cooperation while carrying out work tasks. As long-term effects, not only competence maintenance and improvement, but also competence reductions are possible (competence loss in the case of disuse, “disuse effect”).

We use the PIAAC data to analyze the effect of reading and numeracy requirements in the job and in leisure time on competence levels considering autonomy in work processes and cooperation, formal qualification requirements and occupation. A multiple regression analysis tests the effects separated for literacy and numeracy.

As the main result, competence development and use in the job have an impact on competence levels. Individuals attain higher competence levels if they meet regular and intensive reading and numeracy demands. In contrast to mainstream explanations, we show the importance of work tasks and of work organization for competence. Our model explains one third of the variance in competence levels of literacy and numeracy. Furthermore, the results point to effects of learning on-the-job in particular for lower and medium qualifications. Apparently, possibilities to learn while working have almost no effect for higher qualifications (levels above high school degrees) for the competences measured in the PIAAC data. The content and organization of work provide specific training possibilities that no other form of training offers. Future discussions about on-the-job-training should take these learning conditions into greater account.

Keywords: job requirements, informal learning, workplaces conducive to learning, competence use in leisure time