

Requirements and Design of a Training System for Domestic Workers

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Abstract: Employees in household-related services have so far been neglected in research and practice. The overall goal of our project is to identify work-related stress of this special target group, develop recommendations, and disseminate them using low-threshold, attractive edutainment offers. In this context, this contribution presents a learning platform design for the special target group of domestic workers, such as gardeners or cleaners. The design is based on a requirements analysis with respect to this special target group, which we as well outline in this contribution.

Keywords: E-Learning, Minority Group, Gameful Design, Gamification

1 Introduction

Employees in household-related services, also called domestic workers, can be considered as a vulnerable target group due to multiple social and health-related disadvantages. This special target group has so far been neglected in research and practice. The project *Gekonnt hanDeln*⁵ focuses on the identification of work-related stress of employees in close-to-home services, both legally as well as non-legally employed. Based on a participatory research process we develop recommendations for the target group and disseminate them using low-threshold, attractive edutainment offers through a web-based platform. Those offers aim at training work-related social and health skills. This work outlines the design of our platform, discussing requirements and gamification concepts.

2 Outline

As preparation for the development of the web-based training platform, we conducted a preliminary requirements analysis. The target group was analyzed by studying scientific

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works concerning their work-related stresses and strains, their legal rights and scientific work on accidents in close-to-home services. Additionally, individual interviews, a representative survey and workshops with legally and illegally employed workers, were carried out that focused on health and stress-related topics. The main findings were that the average age is comparatively high with 17 % being over 65. Most of the people in the target group being women (~90%) [Kn20]. Our interviews additionally revealed that smartphones are much preferred over desktop PCs, which are often not available. Lastly, they often miss social interaction with peers. As a result, we formulated the following main requirements for the training platform:

1. Teaching of essential knowledge for domestic workers,
2. creating a sense of relatedness to peers,
3. offering objective feedback to their knowledge,
4. intuitive orientation and open-access,
5. offering appealing content through gamification and multimedia-content and
6. reducing challenge rather than introducing challenge to motivate use.

With respect to these requirements, we designed a platform that offers a playful learning experience. Three interactive learning assets offer this experience: *Quizzes* comprise questions with respect to topics like physical health, mental health and legal rights. In *interactive adventures*, the user can follow a virtual character and help them through every day, challenging situations. Lastly, users can watch acted *videos* where different real-life situations are shown with helpful advice for their personal working life. These three learning assets shall keep users interested, make theoretical knowledge more graspable and provide content for different personal preferences. To improve the motivation of use, we developed a gameful design [De15]. This resulted in a “workshop”-narrative where the characters from the adventures accompany the user for the quizzes and videos, give advice on what to do next and cheer up the users for being successful. Additionally, we split the quizzes in small chunks, work on progress feedback for finishing quizzes and videos, and aim at an “endgame” experience.

3 Conclusions and Future Work

We gave a short overview of the requirements and the approach of a training platform for domestic workers. The resulting design facilitates established learning assets and provides gamefulness. The addressed requirements are mainly concerned with ease-of-use, the target group's potential lack of relatedness to colleagues in their working field as well as the group's lack of objective feedback to their skills and knowledge. Further research aims at finalizing the technical implementation of the training system for public deployment to collect more feedback-data on the presented design.

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