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## **Conference** paper

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## **Conference topics:**

Continuing Professional Development, Economic and Social challenges facing Europe, Methodological developments

## Title:

Developing Competence in SME in Demographic Change through Diversity- orientated Personnel Development with E-Learning and Multimedia

## Abstract:

Low-skilled employees and those with a migration background receive little or no support in the working world, although the shortage of personnel or skilled employees will mean that companies cannot reject the potential workforce of this target group in the future. For instance, in Germany there is far less participation in continuous education and training for disadvantaged target groups than in those of target groups without disadvantages. Semi or unskilled employees are less often advised to take training and learning opportunities and learning-failure expectations lead them to request professional development only seldom.

The challenges faced by personnel management with a high percentage of these target groups (examples given are from logistics industries in Hamburg) include systematically clarifying and developing these target groups' hidden potential, by means of a diversity-based competence development. E-Learning modules, Blended-Learning seminars and other forms of interactive multimedia-based learning, as practiced by the author for years, do not enjoy a high-level of acceptance among the target group of low and unskilled employees. Using Blended-Learning offers requires greater learning competences than are often available in this group. The question is: What part can new, innovative multimedia learning-environments play to help personnel management support the development and implementation of competence in SME?

#### INTRODUCTION

Encouraging all employee groups adequately, is the challenge facing companies with heterogeneous and multi-ethnic workforces. It is often the case that employees with poor qualifications or with migration backgrounds are not as well promoted as other workforce groups, nor do they request participation in professional development-schemes so often, partly because they fear learning failure (Brüning 2001, p.6). Employees with migration backgrounds also often bring problems with poor language skills, low qualifications and a lack of adaptation qualifications.

In future, the tasks involved in operational education management will require proactive strategy-orientated designers and partners for the competence development processes within companies (Kuhlmann/Sauter, p. 61). Employees and management will also face new challenges. "Competence management must describe and clarify employee competences and ensure their transfer, implementation and development concerning strategic company targets. Competence management covers both the company perspective (strategic orientation), and the employee perspective (personal goals)" (North, K./Reinhardt, K. 2005 acc. Kuhlmann/Sauter 2008 transl. by author). This would mean finding new learning forms and methods within the framework of organisational changing processes, which will improve all employee groups' professional (technical, personal and social) competences.

The logistics sector is marked by a deep-reaching structural alteration with world-wide effects, and which has led to rapid growth in recent years. At the same time, the requirements of the sector for the mainly unskilled and job-trained employees, of whom many have migration backgrounds, are increasing: Regulations governing cargo security, well-founded knowledge of transport goods and even local low-tech customer service all need diverse competences.

The other side of the picture shows strong pressure being brought to bear on time and costs which causes onerous working conditions for employees and leads to greater fluctuation. This structural change in the logistics sector, in conjunction with the demographic development, makes it constantly more difficult for SME to recruit the mainly unskilled and job-trained employees or to retain them long-term. Not only a lack of professional competences, but also of social competences and luK-Technology abilities, make employability increasingly difficult. Against the backdrop of the demographic development and the prognosis of a future dearth of a suitable workforce, employees with migration backgrounds represent a valuable potential workforce (Boll et al. 2013, p. 9 et seq.) that, with the help of systematic competence development, could and should enable long-term commitment

**SETTING TARGETS (Research status, innovation and knowledge improvement)** Much research and numerous projects ie. The "Work- Learn-Competence Development" programme, have dealt with the operational competence development of disadvantaged employee groups and have made suggestions for workplace- integrated forms of learning and working (eg. Dworschak et al. in the research project "Operational Competence Development of Low-Qualified Workers"; Brüning/Kuwan 2002)

So far, a holistic view has been missing, which would measurably describe competence development as the core provision necessary for ensuring employability, as dependent upon a number of factors, such as leadership, learning, working conditions and health. Employability, in this context, refers to individual requirements being in line with the demands of a concrete work-place (Apel/Fertig 2008).

Another area promising greater understanding of the problem is operational competence development using online-supported forms of learning such as E- and Blended Learning. Online-supported learning methods are particularly suitable for the target group of employees with migration backgrounds, since they are often "au fait" with computers and smartphones, and educational units at their individual learning speeds can compensate for language barriers (Wessels 2010, p. 69). Unfortunately, onlinesupported learning formats do not seem to be popular among the low-qualification target groups (Severing 2008, p. 11). KWB (Koordinierungsstelle Weiterbildung und Beschäftigung, Hamburg) and TLA (TeleLearn-Akademie) tried out Blended Learning for unskilled and job-trained employees during the EQUAL project "ICC Bridge to the Market", and came to the conclusion that many participants lacked the necessary selflearning competences (Grotlüschen/Brauchle 2004).

Despite the existence of several research works and practical guidelines for competence development with online-supported learning formats (eg. Kuhlmann/Sauter 2008), detailed information remains missing concerning their optimal presentation, if they are to improve the learning successes and thereby the competence development of low-qualified employees.

Competence development using Blended Learning requires a strategic process in personnel and organisation development, incorporating working and learning processes within the company (Kuhlmann/Sauter 2008). Just how successful a holistic, strategically-orientated conception of such a process would be, remains yet to be fully empirically researched.

The project planned would fill such knowledge gaps and develop solutions as to how performance competence, as a central indication for the employability of this particular target group of unskilled and job-trained low-qualification employees with migration backgrounds, could be measurably improved, with regard to the above-mentioned variables; leadership, learning, working conditions and health.

The micro-perspective allows the questions - which qualifications, of which form and content are necessary, for which groups of persons, how to booster motivation and awaken interest, which learning strategies achieve the best results and which individual abilities, strategies, preferences, occupational biographies and life-styles are conducive to performance competence? From the company point of view (organisational level) the questions arise as to not only the use of human resources, the exact nature and promotion of qualifications and competence profiles, but also the costs and benefits of measures ensuring or even increasing employability (Blancke/Roth/Schmidt 2000, p.3).

Investigation is needed to determine whether interactive, multi-media and work-place proximal settings are conducive to increased opportunities for improved qualifications for this specific target group of unskilled and untrained employees with migration back-grounds. Such employees are often unused to formal teaching/learning situations. Close to the workplace, flexible learning forms could enrich their motivation and encourage them to gain "on the job" problem-orientated qualifications. Multi-media learning situations can offer expertise with regard to work requirements as well as back-ground information on learning opportunities. Self-learning competences would be supported by coaching and mentoring.

## SUB-PROJECTS

Three sub-projects will answer the following questions:

Sub-project 1: Competence development through mobile and Blended-Learning scenarios

- How can the hitherto unrecognised competences of multi-ethnic workforces be activated and developed?
- Which work-place integrated learning forms and methods are effective, in developing the competences of this disadvantaged target group?
- How can Mobile and Blended-Learning methods be incorporated specifically, in the development of technical, methodical, personal and social competences?

## Sub-project 2: Leadership and competence development

- What shape should integrated competence management take, if it is to improve the performance competence of employees of differing backgrounds and qualification levels measurably and long-term?
- How can corporate management improve the disadvantaged target groups' employability through diversity-based personnel management? What is the role of management during this process?

## Sub-project 3: Working conditions and competence development

- How can integrated competence-management contribute to healthier and longer working lives for the target group?
- How can health-promoting working conditions improve the disadvantaged target group's performance competence?

The project aims to achieve following goals in the structure of future operational competence management:

- 1. <u>Progressive designing of the interaction between the demographic change and the</u> <u>modern working world:</u>
- By introducing diversity-based competence management, participating companies are able to react to the demographic change and make competence development long-term and compliable with requirements of tomorrow's working world
- Making systematical comparisons between requirements and existing competences in companies

- Developing online-supported learning offers, using not only PCs or notebooks but also the ubiquitous smartphones or tablets (mobile learning), thereby reaching the target groups in a company better
- Developing further innovative learning forms such as mentoring, coaching, with learning groups or colleague counseling
- Monitoring learning behaviour and giving specific offers of help
- 2. <u>Tapping competences of an entire workforce better and activating hitherto unrec-</u> ognised competence potential
- Through diversity-based competence ascertainment (eg. assessment of intercultural, informal or familial competences)
- Improving the qualifications of unskilled and job-trained professionals through workplace-integrated competence development
- 3. <u>Maintaining both, work-force performance abilities and their contribution to high</u> <u>quality gainful employment:</u>
- Employability improvement through health promotion and stress reduction measures
- Increasing participation of unskilled and job-trained employees in education and training
- Reducing fluctuation
- Promoting employee loyalty
- 4. Strengthening business efficiency and social prosperity:
- Increasing competetiveness of participating companies through better use of existing competence potential, and efficient qualification of a highly diverse work-force.
- Model character for SME with similar employment structures.

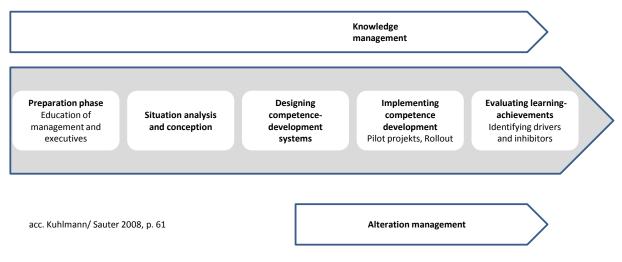
Applied pure research, using explorative case-studies from three companies, will assist in gaining a deeper understanding of how a framework of organized leadership, learning and working conditions can influence individual employability. To this purpose, the investigation must take the shape of a combination of quantative instruments (questionnaires) and qualitative methods (guideline-based interviews) in a method triangulation.

We are part of an international programme investigating interactive multi-media learning forms using Blended Learning. For the first time, findings from innovative, multimedial learning situations within academic education programmes, will be applied to corporate training programmes. This will take place in a number of steps:

## **RESEARCH DESIGN AND SOLUTION PLAN:**

## **OPERTIONAL COMPETENCE DEVELOPMENT IN FIVE PHASES**

The employees from three medium-sized companies gathered within the umbrella network of courier services, will be the subject of research. The main focus will be placed on the target group of low or unskilled employees, of which roughly 60% have migration backgrounds. Employing the diversity approach, integrated as a cross-cutting theme in all stages of the process, will explicitly enable the inclusion of all employees although the specific focus will be placed on the target group. The concept will be implemented within the companies in five steps, in accordance with the findings of Kuhlmann and Sauter (2008):



Implementation design:

1. Preparation phase: Education of management and executives in multi-media learning situations, as process promoters: Introduction of "competence and resource-based personnel management" with particular regard to diversity- management using Blended Learning and micro-learning (open, diverse, respectful and learning-ready corporate culture)

2. Analysis phase: Analysis of strategic goals and management requirements, of learning needs, learning culture, learning systems, learning infrastructure and an analysis assessment (expert interviews, analysis of the company Courier Expertise Requirements handbook) 3. Designing competence development systems: a competence cataloging system developed by the participating project partners, as defined by appropriate fields of action. At this stage, a "certificate of competence" as used successfully in SME, can be awarded, as part of a qualitative method (Wiesner, G et al. 2009). Using E-learning, micro-learning, Blended Learning (as well as mentoring, coaching, learning tandems and groups) all of which are conducive to competence development, workplace- integrated learning arrangements will be designed after evaluating the competences of employees from all three companies, Interactive workshops will encourage participants to think independently, while learning materials will be continuously compared with everyday workplace situations.

4. Implementing competence development: Formulating learning conceptions, development and production of learning media, the competence development of educational planers and executive management, of trainers, tutors and coaches for Blended Learning schemes, and also the implementation of competence development among employees.

5. Evaluating learning achievements: Measuring learning success (increase in competence, improvement in performance competence) difference analysis, cost effectiveness, optimization measures. The factors promoting, respectively, hindering the improvement of employability should also be considered in the evaluation. These might be either individual factors (learning motivation, learning competence) or the quality of such learning offers, methods and instruments, but include the overall learning climate as shaped by the executives and working conditions.

## CONCLUSION

This project measurably describes competence development as the central requirement for ensuring employability as dependent on from variables such as leadership, working conditions and health. It also introduces a concept for competence development using Blended Learning.

The demographic change poses a challenge for companies with heterogeneous and multi-ethnic staff, eg.in the logistics sector, to offer adequate encouragement to all groups of employees. It is this target group which represents a main source of potential employees for logistics companies.

These companies are facing the growing problem of staff recruitment and retention.

In the future it will, therefore, not only be important how SME recruit semi and unskilled staff. For companies to remain competitive, it is also vital to analyse just how employees can be motivated to improve their "on the job" qualifications, to maintain their employability and lower the fluctuation rate among couriers.

To this end, in five phases, this project will accumulate knowledge concerning how, with the help of interactive learning methods in multi-media learning situations, a continuous increase in employees' motivation to gain further qualifications can be achieved. This learning success will further be made measurable with the help of: The introduction of employability-promoting competence and resource-based personnel management with regard to diversity management, by creating and analyzing a "certificate of competence" as a gauge for the standards of competence among the target groups. Using this as a basis, learning concepts can then be formulated. Blended Learning media can be developed and produced. As a last step, the learning success can be measured. A final evaluation should investigate the factors promoting or hindering an improvement in employability.

## REFERENCES

## Apel/Fertig 2008

Apel, H., Fertig, M. 2008: Operationalisierung von Beschäftigungsfähigkeit– Ein methodischer Beitrag zur Entwicklung eines Messkonzepts, ISG Working Paper Nr. 8

## Berger/Berger-Klein/Krüger/Linhart 2004

Berger, P./Berger-Klein, A./Krüger, D./Linhart, H. (2004): Human Resource Management und Arbeitsgestaltung. Erfolgsfaktoren und betriebliche Erfahrungen, Symposion Verlag, Düsseldorf 2004

## Berger/Berger-Klein/Krüger/Teubert 2007

Berger, P./Berger-Klein, A./Krüger, D./Teubert, M. (2007): Human Resource Management in Veränderungsprojekten. Ansätze – Methoden – Instrumente, Christiani Verlag, Konstanz

## Berger-Klein 2013

Berger-Klein, A.: Innovative Multi-Media Based Learning Environments with Blended Learning (InnMuLearnEBL), Video Poster, published at the UAS Days Seminar May

4<sup>th</sup> – 15<sup>th</sup> 2013, University of Applied Science, Turku, Finland, 2nd Place in the respective video poster competition: "Pedagogical Innovations as a Bridge to Europe": <u>http://www.professore.de/beispiele-blended-learning</u>

#### Blancke/Roth/Schmid 2000

Blancke, S., Roth, C., Schmid, J. 2000: Employability (Beschäftigungsfähigkeit) als Herausforderung für den Arbeitsmarkt. Auf dem Weg zur flexiblen Erwerbsgesellschaft. Ein Konzept- und Literaturstudie, Arbeitsbericht, Nr. 157 / Mai 2000

Boll et. al. 2013

Boll, C. et al. 2013: Ungenutzte Arbeitskräftepotenziale in Deutschland. Maßnahmen und Effekte, Kurzfassung, HWWI 2013

Brüning 2001

Brüning, G. 2001: Weiterbildung für Benachteiligte. An- und Ungelernte in der Weiterbildung – Vergessen und bildungsfern?, Vortragsmanuskript vom 17.9.2001

Brüning/ Kuwan 2002

Brüning, G., Kuwan H. 2002 (Hrsg.): Benachteiligte und Bildungsferne – Empfehlungen für die Weiterbildung, Deutsches Institut für Erwachsenenbildung. Unter Mitarb. von Angelika Graf-Cuiper, Bielefeld Bertelsmann

Dworschak 2007

Dworschak, B. et al. 2007: Statt Abqualifizierung: Kompetenzentwicklung, Konzepte und betriebliche Erfahrungen bei geringqualifizierten Mitarbeiterinnen und Mitarbeitern, QUEM-Materialien Nr. 78, Arbeitsgemeinschaft Betriebliche Weiterbildungsforschung e. V.

Grotlüschen / Brauchle 2004

Grotlüschen, A. /Brauchle, B. 2004: Bildung als Brücke für Benachteiligte. Hamburger Ansätze zur Überwindung der Digitalen Spaltung. Evaluation des Projektes Information Technology and Communication Competence – Bridge to the Market, Hamburger Beiträge zur beruflichen Aus- und Weitebildung, Bd. 5, Münster

## Höbling/ Reglin 2010

Höbling, G./Reglin, T. 2010: Bausteine in der Weiterbildung. Kompetenzprofile erfassen und bewerten. Ein Vergleich von Kompetenzerfassungsinstrumenten sowie Handlungsansätze zur Entwicklung von Weiterbildungsbausteinen für Hamburg, KWB (Koordinierungsstelle Weiterbildung und Beschäftigung), Hamburg, und f-bb (Forschungsinstitut Betriebliche Bildung), Hamburg

#### Kuhlmann/ Sauter 2008

Kuhlmann, A., Sauter, W. 2008: Innovative Lernsysteme: Kompetenzentwicklung mit Blended Learning und Social Software, Berlin, Heidelberg

## North/ Reinhardt 2005

North,K., Reinhardt, K. 2005: Kompetenzmanagement in der Praxis –Mitarbeiterkompetenzen systematisch identifizieren, nutzen und entwickeln, Gabler

## Professore.de 2013

Professore.de: Innovative Multimedia Learning Environments with Blended Learning (InnMuLearnEBL), Video Poster, first published on Tuas Days Seminar, University of Applied Sciences, Turku, Finland, May 2013, <u>http://www.professore.de/beispiele-blended-learning</u>

## Severing 2008

Severing, E. 2008: "Qualifizierung An- und Ungelernter". Ergebnisse einer Befragung von Unternehmen der bayerischen Metall- und Elektroindustrie, October 2008

## TeleLearn-Akademie 2011

Telelearn Akademie, Hamburg 2011: Entwicklung einer Reihe von acht Blended-Learning-Szenarien in der Reihe "Praxis Logistik" vom "Grundlagenwissen für Lagerfachkräfte", "Anschlagen von Lasten", "ConTrucker" für einfache Tätigkeiten bis hin zu Zertifikatskursen für Fachkräfte (Dangerous Goods gemäß CFR 49 704-804) und Nautiker (Ship Security Of icer),

## Wessels 2010

Wessels; Maria 2010: E-Learning für Benachteiligte im beruflichen Weiterbildungsprozess. Möglichkeiten, Chancen und Risiken für Benachteiligte in dem beruflichen Weiterbildungssektor für Wirtschaft und Verwaltung, Books on Demand, Norderstedt

## Wiesner 2009

Wiesner, G. et al. 2009: Kompetenzpass für Weiterbildner/innen. Erwachsenenpädagogische Kompetenzen bilanzieren. Handreichung, Technische Universität Dresden, Gefördert vom Sächsischen Staatsministerium für Kultus/Sächsischen Bildungsinstitut