Digital media as support for Technical Vocational Training - Expectations and research results for the use of Web2.0

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Table of Contents

1. Introduction (Current situation and state-of-the-art)
   1.1 Digital Media as learning support
   1.2 The Dual System: TVET in Germany

2. ExpertAzubi: A learning and communication platform
   2.1 General approach of the project
   2.2 Objectives and elements
   2.3 Research questions and methods

3. Results of the project

4. Outlook
1. Introduction
1.1 Introduction – Digital Media as Learning Support

„E-Learning with PC“  „Learning via Web2.0“  „Mobile Learning“
1.1 Introduction – Digital Media as Learning Support

• Technological development vs. Didactial Approaches?!

• Motivation and Behaviour

• Digital Natives vs. Digital Immigrants (Prensky, 2001)

• Digital Residents vs. Digital Visitors (White 2011)

• Media competency?!
1.1 Introduction – Digital Media as Learning Support
1.2 The Dual System of TVET in Germany

Education and Training System in Germany

- Continuing vocational training
- Labour Market
  - Dual VET-System: Company/part-time vocational school (approx. 51%)
  - Full-time vocational schools (approx. 12%)
  - Upper secondary grammar school (approx. 37%)
- University
- Tertiary level over 19 years
- Secondary level II: 15 to 19 years
- Secondary level I: 10 to 15/16 years
- Primary level: 6 to 10 years

Source: OECD “Education at a glance” 2003
1.2 The Dual System of TVET in Germany

The Two Domains Constitute the “Dual System of Training”...

Training Institution
classified by:
- Learning
- Protected Zone
- Individual Care

Enterprise
classified by:
- Production
- Efficiency
- Profitability

Need for a Coordinating

Core Learning Environment:
CLASSROOM

Core Learning Environment:
WORKPLACE

.... with the Two Corresponding Core Learning Environments

Source: Gert Loose, Dual System Project, 2005

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1.2 Actors within the Dual System of TVET in Germany

Characteristic Elements of Dual VET-System in Germany

- Organised by:
  - Private Sector
  - Public Sector

- Conducted in:
  - Companies
  - Part time vocational schools

- Carried out as:
  - Training at the work place
  - Classroom tuition
  - Compulsory attendance at vocational school

- On the basis of:
  - Training contract

- Regulated by:
  - Federal Government
  - States

- Supervised by:
  - Chambers
  - School supervision bodies
1.2 The Dual System of TVET in Germany

<table>
<thead>
<tr>
<th>Type of Learning</th>
<th>Learning Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract learning</td>
<td>Classroom</td>
</tr>
<tr>
<td>Learning structured contents through demonstration</td>
<td>Laboratory</td>
</tr>
<tr>
<td>and acting</td>
<td>School Workshop</td>
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<tr>
<td>Learning basic functional skills</td>
<td>Central Training Facility</td>
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<tr>
<td>Learning complex / rare functional skills (with</td>
<td>Training Facility at</td>
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<tr>
<td>expensive equipment)</td>
<td>Workplace</td>
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<tr>
<td>Learning Basic or More complex functional skills (</td>
<td>Training Corner at</td>
</tr>
<tr>
<td>with expensive equipment)</td>
<td>Workplace</td>
</tr>
<tr>
<td>Learning functional and extra-functional skills</td>
<td>Workplace</td>
</tr>
<tr>
<td>in real work environment</td>
<td></td>
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</tbody>
</table>
2. ExpertAzubi – A Learning and Communication-Plattform

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2.1 General approach of the project

1. Creation of a *Community* of trainees with the aim to initiate a knowledge transfer between experts and trainees.
2. Sketch of an *Online Report Portfolio* based on Web2.0 technologies
   - Quality assurance of the training
   - Interlocking of learning environments
   - Increase of attraction for trainees
3. Establishment of a process of life-long learning by using a *Learning Portfolio* (maybe as a starting point for an occupational *Competency Portfolio*)
2.1 General approach of the project

- Young persons undergoing training and vocational schools
- Skilled workers and companies (company network)
- Economically underdeveloped region in Germany’s North-West
2.1 General approach of the project

- **Life-long learning**
  - Inter-branch communication
  - Employability
  - Experience knowledge

- **Improved cooperation of learning environments**

- **Improved communication**

- **Vocational orientation**

- **Quality assurance of training**

- **Learners**
  - Trainers
  - Skilled workers
  - Trainees

- **Companies**
  - Trained workers
  - Trainees

- **Vocational Schools**
  - Teachers
  - Trainees
2.2 Objectives and elements (Knowledge transfer)
2.2 Objectives and elements (Online Report Portfolio)
2.2 Objectives and elements (Online Report Portfolio)
2.2 Objectives and elements (Competency Portfolios)
2.3 Research questions and methods

1. How do young people deal with digital media in their private and occupational context?

2. What are the motives for the use of digital media in the context of learning?

3. How can the contents quality of User Generated Contents be assessed in the occupational context?

Research Methods:
• Group discussions and interviews
• Quantity oriented target group analysis
• Comparable empirical studies
3. Results of the project
3. Results of the project

![Private Use of Web2.0](image)
3. Results of the project

![Occupational Use of Web2.0](chart.png)
3. Results of the project

• “Interfering” concept of development tasks:
  • Development of adequate learning concepts
  • Development of concepts of occupational work
  • Integration into the community of practice
• Typical centrals tasks (with progressive requirements) to be coped with in different training years (apprenticeship)
• Perspectives: dealing with work tasks, institutional integration and assuming a role.
3. Results of the project

Learning within Web2.0

- No hierarchies,
- Diversity of opinion
- Learning by revealing opinions
- Anonymity as basic principle

Learning at school

- Clear determination of „important“ and „correct“ by teachers/ textbooks
- Grading and selection as a consequence of assessment
- Related to persons
3. Results of the project

• Primacy of practice (in spite of media affinity)
• Pragmatic use of media for problem solving
• High recognition of the specialist authority of teachers/trainers
• Professional self-perception at the end of the training course
4. Outlook
4. Outlook

- Activity within the Community for the exchange of knowledge and experience (Web2.0-idea)
- Specialist exchange between novices and experts
- Innovative Online Report Portfolio as an approach for reflection and quality enhancement
- Determination of own contents/learning targets (self-organized learning)
- Compilation of digital portfolios (learning portfolio and job application portfolio)
4. Outlook

• But: Affinity to digital media, media competency and existing learning platform – Use of the platform?

• Does vocational training fit in Web2.0?

• We have to monitore the further development (What happens if the internet-affine generations “grow up”?)
Thank you for your kind attention!

Please feel free to ask questions and to participate in the discussion!

For further information please refer to:

http://www.itb.uni-bremen.com

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