Modelling the Virtual Company Educational Scenario
Competence Assessment in the Cooper environment

Howard Spoelstra,
Vlad Posea,
Jan van Bruggen,
Rob Koper

Cooper Workshop, Crete 17-09-2007
Virtual Company educational scenario and competence assessment

Virtual Company educational scenario

- working and learning environment modelled after real company
- students work on projects in a professional setting
- competences to be developed stem from professional practice
- assessment derived from professional practice
Virtual Company educational scenario and competence assessment

**Assessment strategies**

<table>
<thead>
<tr>
<th>Traditional:</th>
<th>Competence assessment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- separates process from product</td>
<td>- process as important as product</td>
</tr>
<tr>
<td>- learning is individual</td>
<td>- develop competence in groups</td>
</tr>
<tr>
<td>- objective, value free, neutral</td>
<td>- knowledge embedded in person</td>
</tr>
<tr>
<td>- assume knowledge universal</td>
<td>- knowledge related to context</td>
</tr>
<tr>
<td>- separates cognitive from affective abilities</td>
<td>- more holistic view of the learner</td>
</tr>
</tbody>
</table>
Main competence list

Group 1: Research
1.1.1 Identifying problems and formulating the research question
1.2.1 Determine methods and techniques
1.3.1 Gathering data
1.4.1 Process data and analyse
1.5.1 Drawing conclusions and evaluating

Group 2: Reporting
2.1.1 Verbal reporting
2.1.2 Reporting in writing
2.1.3 Editing
2.1.4 Presenting

Group 3: Discussion en collaboration
3.1.1 Chairing a meeting
3.1.2 Taking minutes
3.2.1 Collaboration

Group 4: Communication
4.1.1 Acting customer centred
4.1.2 Maintaining external contacts
4.2.1 Communicating inside and outside of the company
4.2.2 Managing company knowledge

Group 5: Supervision of activities
5.1.1 Leading a group
5.1.2 Leading individuals
5.2.1 Planning and organising
5.2.2 Guarding progress
5.3.1 Coaching a fellow worker

Group 6: Personal additions
6.x.x <proposal for additional competencies>
<table>
<thead>
<tr>
<th>Points of interest for assessors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Examines the task and stipulates the problem in consultation with the customer</td>
</tr>
<tr>
<td>2. Differentiates between main and side-issues</td>
</tr>
<tr>
<td>3. Classifies the problem in several aspects/sub-problems</td>
</tr>
<tr>
<td>4. Clearly states to which field the different (sub)problems are related</td>
</tr>
<tr>
<td>5. Provides a clear and complete problem description, based on obtained information.</td>
</tr>
<tr>
<td>6. Describes the problem in a larger framework</td>
</tr>
<tr>
<td>7. Describes availability of background information.</td>
</tr>
<tr>
<td>8. Names relevant stakeholders</td>
</tr>
<tr>
<td>9. Defines relevant research questions and splits these up in sub-questions</td>
</tr>
<tr>
<td>10. Verifies research questions with the customer</td>
</tr>
</tbody>
</table>
Virtual Company educational scenario and competence assessment

Working in Projects (1 of 2)

- Personal development cycle
Virtual Company educational scenario and competence assessment

Working in Projects (2 of 2)

- Team development cycle

1. Client needs
2. Project/Team Workplan
3. Actions
   - First phase
   - Second phase
4. Results (intermediate)
5. Review (intermediate)
6. Results (end)
7. Lessons learned
Virtual Company educational scenario and competence assessment

Assessment model (1 of 2)
Virtual Company educational scenario and competence assessment

Assessment model (2 of 2)

<table>
<thead>
<tr>
<th>Student(s)</th>
<th>Assessment Form</th>
<th>Consolidated assessment form</th>
<th>Final reflection report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coach</td>
<td>Assessment form for project leader</td>
<td>Assess final reflection reports</td>
<td>Final student assessment</td>
</tr>
<tr>
<td></td>
<td>Add comment</td>
<td></td>
<td>Final project assessment</td>
</tr>
<tr>
<td>Project Leader</td>
<td>Final project report</td>
<td>Consolidated project report</td>
<td>Final project reflection report</td>
</tr>
<tr>
<td></td>
<td>Add comment</td>
<td></td>
<td>Lessons learned</td>
</tr>
<tr>
<td>Customer</td>
<td>Add comment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Virtual Company educational scenario and competence assessment

Data model extension
Virtual Company educational scenario and competence assessment

Conclusions

-The virtual company educational scenario requires non-traditional assessment strategies

-The assessment strategy can be modeled using the Cooper development tools, although not all processing occurs inside the Cooper platform

-Testing is needed for usability and validation of the model