Assessment of the effectiveness of VET workplace learning: VET-WL factors model.
A study in the Barcelona area

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An effective WL allows the students:

- to complement the skills or knowledge acquired in VET developed within the institution
- to apply their professional skills to a real work situation
- to acquire attitudes and skills necessary for labor insertion
2. METHODOLOGY (I)

Goals of the project:

- To describe the situation of the WL at this moment, and to identify the main practices of the WL that exist at VET institutions in Barcelona.

- To capture the view of enterprises about the WL, related to: factors that determine its efficacy; its utility; their implication; and, some elements that can be improved.

- To create a tool to diagnose the efficacy of WL.

- To evaluate the efficacy of WL in the Barcelona area, using the factors of efficacy.

- To make suggestions to promote a more effective WL that develops the skills that the job market requires.

Methodological approach of the project:

- mixed, combining quantitative and qualitative data collection and data analyses;
- and, non-simultaneous.
2. METHODOLOGY (II)

**PHASE 1:** Theoretical review

**PHASE 2:** 12 interviews with stakeholders
- Educational system area:
  - 5 interviews education administrations;
  - 1 interview high-school tutor
- Business area:
  - 4 interviews company tutors
  - 2 interviews Chamber de Commerce

**PHASE 3:**
1,026 FET-WL questionnaire for students (previous pilot test)

**Data analysis:**
- Exploratory factorial analysis
- Reliability
- Descriptive
- Simple regressions
- Multiple regressions
- ANOVAs
2. METHODOLOGY (III)

Variables of the interviews with stakeholders:
- Design of WL
- Implementation of training
- Monitoring and relationship between stakeholders
- Evaluation of the WL
- High-school tutors and coordinators of the WL
- Company tutors and coordinators of the WL
- Selection of companies and students
- Profile of students
- Utility of the WL
- Perception of satisfaction with the WL

Variables of the FET-WL questionnaire:
- Profile
- Selection of companies in the WL
- Attitudes
- Efficacy of WL (dependent variable)
- Previous knowledge
- Activity plan
- Tasks
- Company tutors
- High-school tutors
- Work environment
- Reasons to participate in WL
- Satisfaction
2. METHODOLOGY (IV)

FET-WL questionnaire:

- 79 items
  - 21: student profile
  - 8: reasons for selecting the company
  - 12: student’s attitudes
  - 34: variables influencing the efficacy of the WL
  - 4: efficacy of the WL

Scales:
- multiple-choice items
- Osgood’s semantic differential scale (5 points: 1=positive; 5= negative)
- 5-point Likert scale (1=strongly disagree; 5= strongly agree)
3. RESULTS (I)

**Attitudes**
- Social attitudes
  - Individual attitudes

\[ \alpha = .918 \]

**Variables that influence the efficacy**
- School tutor’s role
- Coherence of the high-school-company training
- Company tutor’s role, motivations
- Motivations
- Possibilities for developing the WL
- Integration into the workplace

\[ \alpha = .912 \]

**Variables of efficacy**
- Workplace learning has allowed me to improve the knowledge and skills learnt during training
  - I have been able to apply what I have learnt in my workplace learning placement
  - During the workplace learning I have learnt new professional skills
  - During the workplace learning I have learnt the professional skills necessary for my employability.

\[ \alpha = .972 \]
3. RESULTS (II)

Profile of the students in the study:

<table>
<thead>
<tr>
<th>Profile variables</th>
<th>Students’ distribution according to their responses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Men:</td>
<td>540 (47,5%)</td>
</tr>
<tr>
<td>Women:</td>
<td>597 (52,5%)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;19 years:</td>
<td>394 (34,7%)</td>
</tr>
<tr>
<td>19-20 years:</td>
<td>229 (20,2%)</td>
</tr>
<tr>
<td>20 a 22 years:</td>
<td>306 (27%)</td>
</tr>
<tr>
<td>&gt;22 years:</td>
<td>205 (18,1%)</td>
</tr>
<tr>
<td><strong>Work experience in months</strong></td>
<td></td>
</tr>
<tr>
<td>0 months:</td>
<td>468 (41,5%)</td>
</tr>
<tr>
<td>0-3 months:</td>
<td>129 (11,4%)</td>
</tr>
<tr>
<td>3-12 months:</td>
<td>251 (22,2%)</td>
</tr>
<tr>
<td>&gt;12 months:</td>
<td>281 (24,9%)</td>
</tr>
<tr>
<td><strong>Number of employees of the company where practices take place</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;10 employees:</td>
<td>373 (32,9%)</td>
</tr>
<tr>
<td>10-49 employees:</td>
<td>431 (38%)</td>
</tr>
<tr>
<td>50-250 employees:</td>
<td>149 (13,1%)</td>
</tr>
<tr>
<td>&gt;250 employees:</td>
<td>64 (5,6%)</td>
</tr>
<tr>
<td>I don’t know:</td>
<td>118 (10,4%)</td>
</tr>
</tbody>
</table>
3. RESULTS (III)

Efficacy of the WL:
3. RESULTS (IV)

Model of WL’s efficacy:
3. RESULTS (V)
3. RESULTS (VI)

Factors:

**ATTITUDES**
- In the *model of WL’s efficacy* attitudes, individual and social, do not influence the efficacy (their importance is inhibited when there are other factors).
- However, it is important to note that attitudes are higher:
  * at *concerted high-schools* than at public schools;
  * at *upper grade* than at middle grade (related to age and personal maturity as well as previous work experience);
  * in the case of *girls when*: there is more contact between tutors, they have better academic results, the academic situation is higher than the rest of the class, and they have less subjects failed;
  * and, when the *student chooses the enterprise*.
- Students that *have never worked* evaluate more positively their individual attitudes (*excessively positive perception*).

**HIGH-SCHOOL TUTOR’S ROLE**
- More appreciated by students *without previous work experience* (role guide).
3. RESULTS (VII)

**COMPANY TUTOR’S ROLE**
- More valued for students:
  - without previous work experience;
  - of upper grade than middle grade (type of WL);
  - and, students of middle and little enterprises than big companies.

**MOTIVATIONS, POSSIBILITIES OF DEVELOPING WL AND INTEGRATION INTO THE WORKPLACE**
- More motivation the students:
  - without previous work experience;
  - and, of upper grade than middle grade (maturation, challenges at WL, next to labor insertion).

**COHERENCE OF THE HIGH-SCHOOL / COMPANY TRAINING**
- More valued, if:
  - students don’t have previous work experience;
  - they have changed the enterprise where they do the WL;
  - and, they are in a little company than if they are in a big one.
3. RESULTS (VI)

Efficacy:

Higher efficacy if:
- students have changed company;
- they are women (also in all factors except the high-school tutor’s role);
- there is more contact between tutors;
- they study in concerted high-schools than in public or private high-schools;
- they do the WL in little companies, more than in big ones
- and, if the have no failed subjects.

General results:
- Best academic results, more out of practice.
- To achieve a higher efficacy level it is necessary to improve: weak facilitators, specially: coherence of the high-school / company training and company tutor’s role.
- High-school tutor’s role gets lower results than company tutor’s role.
- Individual attitudes can act as a barrier (although they play a minor role in the efficacy).
4. CONCLUSIONS (I)

WL’s evaluation results: efficacy level medium/high (3.77 on 5)

Model of WL’s efficacy:

- Explained variance: 66.9%.

6 factors:

- coherence of the high-school / company training;
- company tutor’s role;
- motivations;
- integration into the workplace;
- possibilities for developing the WL;
- high-school tutor’s role.
4. CONCLUSIONS (II)

**COHERENCE OF HIGH-SCHOOL / COMPANY TRAINING**
- $\beta$ (factor weight)=$.656^{**}$. Result: 3.41
- First item to **improve** in order to increase the efficacy of WL; it explains the most variance in WL’s efficacy.

**COMPANY TUTOR’S ROLE**
- $\beta = .155^{**}$. Result: 3.72
- It is also necessary to **improve** it to increase the efficacy of WL.

**INTEGRATION INTO THE COMPANY**
- $\beta = .075^{**}$. Result: 4.19
- Strong facilitator of efficacy (external factor)

**INDIVIDUAL ATTITUDE**
- Risk of barrier for efficacy.
- Low impact on efficacy, it is not a priority to improve it.

*p<0.05; **p<0.01*
5. SOME SUGGESTIONS TO IMPROVE VET-WL

- **To improve the coherence of high-school / company training:** contact high-school - company.

- **To improve the company tutor’s role:** more actions to professionalize the work of company tutors and to reward their work.

- **To increase contact between tutors:** it can bring greater coherence of high-school / company training and integration into the workplace.

- **To change the evaluation system:** more possible results and a more committed and continuous evaluation by both tutors.

- **More support during the WL to students who have lower results,** introducing compensatory measures.

- **More attention** to the coherence of high-school / company training and the company tutor’s role when the WL is done in a big company.
THANK YOU

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