Practical application of theoretical courses

Problem statement

Addressed problem: Expectations of vocational programmes

When young people choose a vocational programme they expect learning to be more practical and concrete than in general programmes. They wish to work towards a specific profession and they want the skills they learn through their programme to be up-to-date and relevant to employers.

If these expectations are not met learners are more likely to drop out. Learners are demotivated if they realise that the content or equipment used in training are outdated, or if they do not see the practical application of what they learn in the vocational programme.

Students tend to be discouraged by vocational programmes that give a lot of emphasis to more academic subjects and knowledge. However, theoretical content cannot be excluded from vocational programmes because:

- Vocational Education and Training (VET) also aims at developing key competences and basic skills;
- In many professions manual work has been replaced by more abstract computer-based work, and some vocational programmes have complex curricula.

Understanding the practical application of theoretical courses helps keep students motivated. However, making the links between theory and practice can be a complex process and many learners need support to reflect on it.

Beneficiaries

Learners who lack employability skills
Low-motivated learners
Low-performing learners
Secondary education students
VET students (school based)
VET students (in work based learning schemes)
Vulnerable groups

A good match between learning acquired through VET and skills required in the labour market is relevant for all students. It is also important for all learners that the links between theory and practice are clear. Learners struggling to succeed in academic subjects are likely to benefit the most from understanding the practical application of their studies and the purpose of their efforts.

Addressing the problem

How can we strengthen the links between theory and practice?

The following tips are given as advice to policy-makers and practitioners involved in the design and delivery of vocational programmes. The information is based on Cedefop research into successful measures.

Tip 1: Periodically review VET programmes to check their alignment with labour market skills’ needs

Continuous adaptation of VET to meet the changing needs of the labour market is important to ensure that young people acquire skills that are relevant to employers. Employers and employees’ associations should be involved in this process.
A better alignment between VET programmes and labour market needs can help to improve VET attractiveness to both employers and young people, and keep students motivated. Providing information about the quality and relevance of programmes to the labour market is also important to ensure that young people can make informed choices about their study pathways.

**Tip 2: Keep VET teachers’ knowledge of the workplace up to date**

It is important that VET teachers have an understanding of how skills requirements are evolving so that they can reflect this in their teaching. Continuing professional development should address this need to update teachers’ knowledge. It is also essential to establish connections between VET schools and the workplace. For instance, teachers may visit companies providing training on their own, or accompany learners during part of their training period.

**Tip 3: Cooperate with employers to ensure consistency between school-based and work-based learning**

Establishing links between school-based and work-based learning requires cooperation between training providers and employers. This cooperation should include the designing of training programmes by involving employers, as well as their implementation. VET providers and employers must coordinate to define the intended learning outcomes and activities for each learner during work-based learning.

**Tip 4: Integrate theoretical content into the vocational context**

The integration of theoretical content into the vocational context makes it meaningful for young people. This involves using real or realistic work tasks, for instance:

- Using authentic materials. The explanation of theoretical concepts can be accompanied by demonstrations and practical work using the relevant instruments in a laboratory. VET providers can also propose state-of-the-art workshops where students can work with advanced technologies.
- Using authentic contexts. Learning can happen at the company or at appropriate outdoor environments (e.g. previously working farm) that can be used as realistic contexts to learning activities.
- Working for real clients. It is possible to involve learners in the delivery of products or services to external customers or beneficiaries (e.g. an NGO).
- Organising learning activities in a similar way to work activities. For instance, activities can be allocated to groups of students that take the role of different departments in a simulated organisation.

These approaches help the learners know the practical application of a theoretical learning and this is motivating in itself.

**Tip 5: Evenly distribute work-based learning throughout the programme**

Vocational programmes that are structured in a way in which a substantial amount of theory is delivered before the learner has the opportunity to experience the practice, can be demotivating. Alternating practical training with theoretical instruction, to the extent possible, can contribute to students’ engagement with the programme. Remember that content concerning health and safety at the workplace should be addressed before the learner starts work-based learning.

**Tip 6: Promote active learning to make the teaching of the theoretical content more engaging**
Learners are often bored by book learning. They are more motivated by:

- Constructive learning methods, where learners formulate problems and look for solutions. These methods include project-based teaching, problem-based approaches, or group work.
- Adaptive instruction, according to which teachers adapt their support to the current understanding and capability of learners. For instance, a teacher can set different tasks for different learners or different groups in the class.

These active learning methods can be used to better meet students’ interests and needs and promote peer collaboration. This can help make the teaching of the theoretical content more engaging.

**Tip 7: Provide support in basic skills to learners who need it**

Integrating theoretical content into the vocational context can help shed a more positive light on academic subjects. Still, some learners have struggled with such subjects in the past, which may be due to low levels of basic skills. These learners need additional support in basic skills to be able to successfully complete a vocational programme.

Such support can be provided through different approaches depending on learners’ needs. For some learners, it is important to receive support in basic skills before they start a VET programme to help them follow the programme. Other learners benefit from a more sustained support throughout their studies, for instance through mentoring measures.

**Expected outcomes**

Linking theory and practice helps learners understand the usefulness of theoretical content, keeping them interested in learning. They are encouraged to recognise achievements that are perceived as meaningful, rather than purely academic achievements that they consider unimportant. This can help improve self-confidence.

The following outcomes can be expected at different levels:

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<th>INDIVIDUAL</th>
<th>INSTITUTIONAL</th>
<th>SYSTEM</th>
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<tbody>
<tr>
<td>- Positive attitude to learning and education and training</td>
<td>- Introduction or improvement of collaboration channels of vocational education and training providers with employers</td>
<td>- Introduction or improvement of mechanisms to involve employers and social partners in the design of vocational programmes</td>
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<td>- Positive vision of oneself</td>
<td>- Programmes are reorganised to better respond to learners’ needs</td>
<td>- Increased relevance of VET curricula to labour market and learners’ needs</td>
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<td></td>
<td>- Programmes are more attractive to learners and this is reflected in increased participation and retention</td>
<td>- Increased participation</td>
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<td>- Increased completion rates</td>
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<td>- Reduced drop-out rates</td>
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**Related protective factors**
Theoretical content linked to practical training in the vocational context

Related resources

Good practices

GOOD PRACTICE

ASLAM Cooperativa Sociale

The Italian cooperative ASLAM (VET provider) seeks to respond to the skills needs of the companies in the region of Alto Milanese, by closely cooperating with them.

Italy

Publications
Engaging Young People? Student Experiences of the Leaving Certificate Applied Programme

A research study on the Irish Leaving Certificate Applied programme found that the main reason for students taking the programme was wanting to take more practical subjects.

Download the report here.

Skill shortages and gaps in European enterprises

A Cedefop study recommends companies to cooperate with education and training institutions and participate in curriculum design as a way to tackle skills gaps. Download the report here.