



6

Testing of the material developed within a period of transnational mobility



Education and Culture DG

Lifelong Learning Programme

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

| | | |
|----|--|----|
| 1. | Introduction | 5 |
| 2. | Patterns of transnational mobility in the sector..... | 6 |
| | Selection of appropriate mobility period | 7 |
| 3. | Experiences and feedback of beneficiaries..... | 8 |
| | Preparing mobility | 8 |
| | Executing mobility periods | 8 |
| | Recognition of learning outcomes of the mobility periods | 9 |
| 4. | Aggregation of results with reference to the ECVET-recommendation..... | 12 |

1. Introduction

This report summarises the results of the testing of the material developed (cf. attachments 13-20) within a period of transnational mobility for apprentices.

The following section is focusing on which of the existing patterns of mobility within the sector of aeronautics is best suited for the testing of the material. Section 3 documents the quite controversial feedback received by the practitioners following the structure of the three phases of mobility: preparation, performance and evaluation. A central outcome is that the heads of the Airbus training departments decided to continue to use the materials developed, exceeding the time span of the project. Another positive result is the consideration of the projects' outcomes within the reorganisation of the vocational profiles in Germany. The 'frame declaration' (cf. attachments 10/11), agreed on by the German social partners, is not only referring to the projects' outcomes but also to the ECVET-recommendation.

AEROVET-partners from the other participating countries approved main parts of this declaration (cf. attachments 43-46). Some elements of the ECVET-recommendation like the approach of formulating learning outcomes (LO) (in the German paper "competence areas") as a coherent set of knowledge, skills and competencies or fostering mobility are supported without question; but other parts of the recommendation like a fixed amount of credits points per unit or the formal assessment of single units are not only contradictory to existing laws but also against the interest of the German social partners in the sector.

The AEROVET-partners share these concerns and suggest considering them when revising the ECVET-recommendation in 2014; this could raise the acceptance and user-friendliness of the ECVET. Well founded suggestions are outlined in the last section of this report.

2. Patterns of transnational mobility in the sector

As outlined in the introduction AEROVET was not aimed at introducing new patterns of mobility in aeronautics but at testing and developing the materials (cf. WP 4) within already existing patterns of mobility. The first approach was outlined in the ‘Airbus Intercultural Competencies Programme (ICP, Step 3)’ (cf. http://www.adam-europe.eu/prj/3302/project_3302_en.pdf).

The 3-stage ICP-approach organises in Step I a “getting to know each other” for apprentices or trainees of the 4 countries (Spain, Germany, United Kingdom and France) lasting one week. Step II includes, beside other things, an internship lasting 2 weeks and step III consists of an internship in another country lasting between 6 and 12 weeks. As indicated by the name of the programme, intercultural competencies are at the heart of these mobility periods: *“It is expected that they develop intercultural competencies, broaden technical and social language abilities; they should learn about organisational aspects and work conditions in foreign countries to increase mobility and flexibility within an international company.”* Particular to this step III is that Airbus does not provide any special lessons for apprentices taking part in this programme in the foreign country; they learn at workplaces as in internships in their home country – without permanent supervision by a trainer or teacher. The added value of this approach is that experiences are authentic; after the mobility the learners are able to estimate their interest in living and working for a longer period in the hosting country. This experience cannot be acquired within a school-based, organised and supervised mobility period. On the other hand, such an organised and supervised mobility has, from the instructors’ point of view, the added value that not only is the agreeing on the learning outcomes that should be acquired easier but also it is assured during mobility by the teacher/trainer that the content agreed is offered – this guarantee cannot be given within a mobility at real workplaces.

Another project within the sector is organised by the agency “Arbeit und Leben” (<http://www.hamburg.arbeitundleben.de/>). Mobility lasts 3 weeks and beneficiaries are the students from “Gewerbeschule G15” in Hamburg (DE) and the “Lycée Professionnel Saint Exupéry” in Blagnac (FR)”. This mobility also focuses on the development of intercultural and language competencies; an example of how this programme is promoted in Germany: *“You travel together with other apprentices in small groups for three weeks (at least) in other European countries. There you join a language seminar followed by an internship in a company of your sector. An intercultural preparation-seminar and a follow-up meeting are part of the programme.”*

Selection of appropriate mobility period

The first task was to clarify which of the programmes sketched above was suited for the testing of the materials developed. Several meetings of the AEROVET-partners with the responsible persons (Mareike Hammerschmidt-Wilkens for the Airbus Intercultural Competencies Programme and Christiane Köth for Arbeit und Leben HH) and the practitioners involved in the mobility periods established that only mobility periods lasting longer than 3 or 4 weeks at one learning place are suited for the complex sector of aeronautics. This finding was not generalised; statements referring to other sectors where it might possibly be reasonable to talk about learning outcomes seriously after mobility periods of one or two weeks were not made. Within this context the AEROVET-partners appreciate that the length of mobility periods is increasing; the last number available for us states 5.4 weeks for Germany (2010, source: German NA at BIBB). Another obstacle for recognising learning outcomes of shorter periods becomes obvious by a closer look on the programme of the young Frenchman from the Lycée Professionnel Saint Exupéry in Hamburg: the three weeks are divided in 4 parts of more or less the same amount: learning in the school, learning at Airbus, learning at Lufthansa Technical Training and tourism – that is everything but a coherent learning environment. But these lines should not be understood by any means as a pleading contra these shorter mobility periods – on the contrary getting to know each other, other countries and forms of organisation is an added value in its own right – some of the apprentices, taking part in the ‘step 3’ mobility periods, told us that the participation within these shorter mobility periods brought them to the idea of applying for participation in the longer programme.

The AEROVET-partner and all experts (teachers, trainers, organisers of mobility) agree that it only makes sense to think about recognising learning outcomes within the complex sector of aeronautics if the mobility period lasts 3-4 weeks or longer.

3. Experiences and feedback of beneficiaries

Preparing for mobility

During the preparatory meetings with the practitioners responsible for the mobility periods the **interest** in a standardised documentation of Learning Outcomes (LO) for mobility periods was very high but, on the other hand, there was a degree of **scepticism** due to an expected additional bureaucratic workload. These concerns were smoothed by the integration of the agreement on the Learning Units (LU) to be acquired in the host institution in the organisational activities (responsibilities, accommodation, etc.) that have to be clarified *before* the mobility starts between learner and teachers/trainers of home and hosting institution in any case. This approach additionally led to a sustainable use of the materials.

An added value in practice was the fact that not only were the chosen Learning Units described for mobility but for the whole of qualified work in the sector: In consequence it was possible to certify learning outcomes related to mobility units which were not part of the Learning Units agreed on in advance. The “Memorandum of Understanding” (cf. attachment 13) developed in AEROVET was considered to be, in principle, reasonable but not necessary for mobility periods within Airbus, arguing that: “*mutual understanding [...] already exists*”.

Executing mobility periods

During the mobility periods there was clear added value in the Aerovet approach, which was seen as self-explanatory, with none of the participating teachers, trainers or apprentices reporting any difficulties in understanding or exorbitant workload. This result is not very surprising for the German Airbus people; the structure of the materials was quite close to the German “Förder- und Entwicklungssystem (FES) (cf. attachment 5). But also the reactions of the French and English colleagues were positive; that could not be assumed due to the different cultures in the plants, for example a German apprentice reported from his stay in Toulouse:

“What was very positive for me was the very clear structure regarding hierarchy. In case of any problem; whether one is allowed to perform a certain task or not there is a solution much earlier than in Germany – because everybody knows who to ask. In Germany you are rather thwarted. But on the other hand the French were inflexible in their structure. And work is interrupted till the problem is solved.”

| Lerneinheit 14: Verlegen von Leitungen in luftfahrttechnischen Systemen | | | | | | | |
|--|------------|-------------------------------|---------------------------|--------------------------|---------|------------|--------------|
| Bemerkungen | | | | | | | |
| Mobilitätseinheit | Bewertung | | | | Lernort | Datum | Unterschrift |
| | Beobachtet | Unter Anleitung mitgearbeitet | Unter Aufsicht gearbeitet | Selbstständig gearbeitet | | | |
| Halter und Verteiler anbringen | | | | | | 14.11.2015 | |

| Unit 14: Passing bunched circuits in aircraft systems | | | | | | | |
|--|--------------------|-------------------|--------------------|---------------|-------|------|-----------|
| Remarks | | | | | | | |
| Mobility unit | Assessment | | | | Place | Date | Signature |
| | observed/supported | under instruction | under surveillance | independently | | | |
| Mounting brackets and splitters | | | | | | | |

Filled mobility pass DE (Sheet)

Mobility pass EN (Sheet)

Fig. 1: Exemplary feedback from the mobility periods between Bremen (DE) and Broughton (UK)

Not only were positive comments made about manageability, but also questions of adequateness and interpretation of the assessment-approach on the 4-level scale found acceptance. One of the apprentices reported his experiences:

“I think that the levels are sufficient to classify the task at the working place: Either you are observing or someone is observing you.”

Another apprentice commented:

“Everybody is responsible for his learning. If I start working at a new place everything is demonstrated to me and I do it on my own afterwards. And this is the way how I understood the pass.”

Regarding the fairness of the assessment one of the apprentices, who never reached the highest level of working “independently”, said:

“I don’t have the impression that my assessment was unfair. Although I made no serious mistakes the (skilled workers) were always looking over my shoulder. I made no mistakes but they were always supervising me! They never left me alone. Quality assurance was very present in the whole department“

This all in all positive resonance of testing the mobility passes during mobility periods was decreased by language problems:

“Company language is principally English – but a lot of them didn’t understand it. We were communicating using hands and feet and we learnt some terms in the time”

Recognition of learning outcomes of the mobility periods

The *after* mobility period illustrated the matrices filled-in on which mobility units the apprentice worked (due to company-specific circumstances not in every case that what was agreed on before), and how well he or she performed; i. e. what level of knowledge and skills was reached and should be taken as the starting point by the teacher/trainer of the home institution. This is a real added value for the person in charge:

“At the beginning you surely check whether everything is right – or ask the apprentice. But with the time one gets the impression that the evaluation is realistic.”

Another trainer saw the evaluation in a broader perspective, not only as part of a vocational programme, and is more doubtful:

“I think that companies who will hire people basing on such an evaluation will not rely on this. They will recognise that the candidate reached everything but will insist on a work sample.”

However, there was only low interest in a formal certification – not only because there is no added value due to the legal assessment regulations in Germany and France. Within the AEROVET-partnership and with the practitioners there were controversial discussions about whether such a “formal” recognition (when indicated including the awarding of fictional credit points) should be performed as an example. Finally we decided **not** to perform this step; it would be a sample without value and could eventually imply the wrong impression that the partners were in favour of assessing single units instead of an approach comprising holistic vocationalism. So the German social partners in their Frame agreement state this explicitly, that the existing German assessment approach should be kept, i. e. that there is **no interest** in the assessing of single units:

“The assessment takes place in the form of an extended final examination. The examination consists of two parts. It remains to be clarified whether and to what extent it is possible to organise already Part 1 with a view to the assessment of professional action competence.”

Source: Memorandum of understanding of the German social partners, see annex 10/11

This approval of the legal regulation of the German law (BBiG) does not imply by any means, that the approach by the AEROVET-project is not supported. Under the headline “mobility“ the social partners agreed:

“The descriptions of competence areas [Learning Units] and the related competences in the curricula aim to contribute to the transparency of training contents, thereby paving the way for undergoing parts of the training programme in other European countries and earning credits for the related training contents.

The social partners are in favour of international exchange programmes for apprentices and recommend enterprises to participate in such programmes.” Source: Memorandum of understanding of the German social partners, see annex 10/11

Also the representatives of Airbus accepted the approach, the heads of training departments stated in November 2011:

“Preferable would be the use of these sheets for all Step 3 mobility periods for a better coordination and monitoring of training measures in the home and foreign countries. Participants evaluate the use of these sheets as very helpful for illustrating competencies acquired abroad.”

Altogether some dozens of apprentices per year (depending on the demand for step 3 mobility periods) will benefit from the materials and results of AEROVET.

4. Aggregation of results with reference to the ECVET-recommendation

Some central elements of the ECVET-recommendation found broad approval in the project AEROVET: a (moderate) Learning Outcomes approach, especially respecting the coherence of knowledge, skills and competencies, the formulation of the units independent of the learning place, the promotion of mobility and the documentation of the Learning Outcomes of mobility periods turned out as a real added value of the project.

One of the dimensions that describe the structure of national VET systems is the degree of standardisation. One extreme is a nationwide standardised curriculum of learning units with fixed volumes that each training provider has to comply with, similar to the general school system. The other extreme is a modular system in which every training provider is offering only the learning units that are relevant for ‘their’ region or enterprises. According to the AEROVET partners’ view neither of these extremes is the optimum. Instead, the best approach consists, to quote the German social partners in this sector, in the “**internal flexibility of the training occupations instead of fragmented modularisation**”. This approach combines the principle of vocationalism (each training provider is required to teach all learning units) with the opportunity to define regional or company-specific priorities. For instance, the relative weight of a learning unit may vary between 5% and 10% of the entire qualification. This approach is incompatible with the allocation of a fixed number of points to the units, which is why the AEROVET partners think that a revision of the ECVET Recommendation with a view to a flexible weighting of the learning units should be considered.

The partners’ view is that from a systemic perspective credit points entail the risk that in dual systems especially SMEs or highly specialised enterprises do not have the training capacity to respond to the paradigm shift from minima to rigid benchmarks. Consequently a **decline in these companies’ willingness to train** has to be expected.

A point of concern that was often expressed by the expert practitioners is that the implementation of ECVET might require considerable efforts and resources. Accordingly a “lean” implementation should be envisaged.

A controversial issue was also the degree of recognition. Apart from the legal conditions, which make a formal recognition of fundamental learning outcomes from the mobility phases impossible in countries with a holistic tradition of assessment, the AEROVET partners are also aware of the question as to

whether such recognition is desirable at all from a pedagogical point of view, given especially the experience of the Bologna process. Is it the comprehensive professional competence that is to be assessed or a bundle of modules?

Another dimension that should be taken greater into account during the process of further developing ECVET according to the view of the AEROVET partners is language competence. Even in the high-technology sector of aeronautics, where relevant manuals etc. are in English and the educational level of the apprentices is above-average the language barrier is an obstacle not to be underestimated (see above). We have no concrete recommendation related to this issue, but our impression was summarised quite pointedly by our Spanish colleague reflecting on this at the final meeting of all ECVET-pilot projects:

“In the final meeting, we were discussing that language was not an important issue when exchanging students (with simultaneous translation of the speakers, who used their mother tongue and a high percentage of the audience using the system). As I guess that our language skills are higher than the ones supposed of the trainees, this line of argument was impossible for me to understand.”

Besides these concrete reservations, which are limited in their national as well as sectoral scope, the AEROVET partners also face more far-reaching issues. Doesn't a policy approach based on the accumulation of certified units misconceive the power relations between learners and training providers, be they public or private, and thus entail the inherent risk of a fragmentation of existing occupational profiles? Doesn't this approach promote the emergence of an (expensive) assessment and certification landscape with detrimental effects on vocational education and training (for example, teaching to the test)? At this point all the AEROVET partners can do is express their hope that these questions and findings may be taken into account in the possible revision of the ECVET Recommendation in 2014.