



Revision of education variables in the EU Labour Force Survey – summary of the 2010 Eurostat grant action

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1. Introduction

In May 2010 Eurostat launched a grant action for the “Implementation of the Adult Education Survey for 2011-2012. Revision of education variables in the EU Labour Force Survey”. The set of actions to be run under this grant aimed mainly at the implementation of the Adult Education Survey (AES) but also at testing new features on participation in education and training in the Labour Force Survey (LFS) and to enhance the coherence of results from both surveys.

Action B on the implementation of variables on participation in formal and non-formal education and training suggested the following sub-actions:

- (1) testing the education variables according to the concepts of the Classification of Learning Activities (CLA) – and thus to the concepts used in the AES – in the EU Labour Force Survey (LFS), and for
- (2) testing the feasibility to implement a reference period of 12 months in the LFS.

21 countries carried out activities related to action B1 and/or B2¹. The following summarises the main outcomes related to the tests of the LFS. Please note that not all actions covered by the technical specifications of the grant were carried out by all participating countries.

¹ Two more countries carried out actions related to the implementation of the AES only.

2. Further harmonisation of education variables in AES and LFS²

Action B suggested harmonising the questions in the AES and LFS that cover participation in formal and non-formal education and training. The main goal has been to formulate LFS questions that are consistent with the concepts in the Classification of Learning Activities (CLA) in the AES.

The current LFS education variables EDUCSTAT³ and COURATT⁴ are not yet fully aligned to the CLA concepts (and thus to AES). For EDUCSTAT, the objective was to check the influence of changing the concept of the variable from “regular” to “formal” education. For COURATT, in order to ensure a good coverage of non-formal education and training activities, the question(s) should remind the respondent of the most frequent types of activities in the country and specifically of not job-related ones. Guided on the job training should be excluded.

2.1. EDUCSTAT – regular / formal education

In the majority of participating countries (15 out of 21 countries), the variable EDUCSTAT is either already aligned to the CLA concept of formal education or such further alignment via changing the wording of the question is considered to be feasible.

The remaining 6 countries did not analyse the variable on formal education. The grant action targeted at a harmonised implementation of the variables in formal and non-formal education where this is not yet done. Therefore it might be assumed that the variable EDUCSTAT is already in line with the CLA concept in the countries that did not further analyse this variable.

Summary: for EDUCSTAT, the term ‘regular’ could be replaced by ‘formal’ in the Regulation and in all parts of the explanatory notes; the explanatory notes could be further aligned to CLA terminology where necessary.

Table 1: Formal education – details by country

BE	Alignment to the concept of formal education is possible.
BG	Alignment to the concept of formal education is possible. The wording of the LFS question should be improved in order to reflect the concept of formal education.
CZ	Only non-formal education analysed; it might be assumed that EDUCSTAT is already aligned to the concept of formal education.
DK	Only non-formal education analysed; it might be assumed that EDUCSTAT is already aligned to the concept of formal education.
EE	Already aligned to the concept of formal education.
EL	Not analysed; it might be assumed that EDUCSTAT is already aligned to the concept of formal education.
FR	Alignment to the concept of formal education is possible. Same concept used in AES and LFS.
IT	It is possible to harmonise. Using the same definitions in AES and LFS is important.
CY	It is possible to harmonise. Common definitions implemented since 2003/2006.
LV	It is possible to harmonise. The same concept is already used.

² This part only considers harmonised implementation of the concepts of the CLA but not the reference period.

³ Student or apprentice in regular education.

⁴ Did you attend any courses, seminars, conferences or receive private lessons or instruction outside the regular education system.

LT	Not analysed; it might be assumed that EDUCSTAT is already aligned to the concept of formal education.
HU	EDUCSTAT contains all formal education (UOE scope); qualifications outside UOE scope are in COURATT.
MT	It is possible to harmonise.
NL	Alignment between AES and LFS is possible.
AT	Already measured in the same way in AES and LFS, with good results.
PT	Already asked in the same way in AES and LFS.
SI	Only non-formal education analysed; it might be assumed that EDUCSTAT is already aligned to the concept of formal education.
SK	Only non-formal education analysed; it might be assumed that EDUCSTAT is already aligned to the concept of formal education.
FI	It is possible to harmonise. The same concept is already used.
SE	It is possible to harmonise. LFS is already almost consistent with AES.
NO	It is possible to harmonise. The same concept is already used.

2.2. COURATT – attending courses etc. / non-formal education

18 out of the 21 participating countries consider the further alignment of the LFS variable towards the CLA concept of non-formal education to be feasible⁵. The following remarks were made:

- Several countries indicate that a better wording of the question increases participation rates.
- The proposal of the task force on education variables to split the variable into several questions was considered to be useful in a couple of countries. However, others found it more useful for the LFS to amalgamate the information into one question only.
- Opinions differ about whether AES and LFS should use exactly the same questions – in some countries this works well, others indicate that a ‘lighter’ question is more suitable for LFS.
- Guided on the job training accounts for a large part of non-formal training. Most countries indicate that it should not be covered in the LFS (in line with the recommendations of the task force on education variables) but also indicate that specific questions are necessary to ensure that guided on the job training is excluded.
- It is important to mention in the LFS context that non-formal education also covers non job-related courses, seminars etc., e.g. hobby courses, cooking seminars, etc.
- Older people do not like to be asked many questions on education.
- Proxy interviews might lead to an underestimation of non-formal education.

Summary: COURATT can be further aligned to the concept of non-formal education, the Regulation and explanatory notes could be adapted accordingly. However, guided on the job training should remain excluded in the LFS (as recommended by the task force on education variables). In general, improving the wording of the question(s) in the LFS improves the quality of the data. The recommendations of the task force on education variables (notably to split the generic question into as many questions as types of non-formal training) can improve the

⁵ The remaining 3 countries either did not analyse COURATT (LT) or are not conclusive on the alignment of concepts (DK, EL).

coverage of non-formal education and should be aimed for by countries that have not yet done so. In view of the experiences of some countries, countries that consider changing their question(s) on non-formal education should test if splitting up the question works well in their national context.

Table 2: Non-formal education – details by country

BE	Alignment to the concept of non-formal education is possible. An increase in non-formal education is expected from improving the COURATT question(s). In the LFS, splitting into several questions is more appropriate (short, easy to remember). The exclusion of guided on the job training needs to be ensured; this demands the same effort as if it was included.
BG	Alignment to the concept of non-formal education is possible. The question(s) should be improved. Few short questions would help the respondents to better understand the concept.
CZ	Alignment to the concept of non-formal education is possible. The LFS question was aligned with the AES question(s) and instructions. The improved question leads to a significant increase of participation in non-formal education due to better recall. There was no negative impact on non-response. Guided on the job training is excluded in LFS.
DK	AES questions were tested in LFS but respondents found the extra questions rather confusing. AES questions which separate different forms of courses might be more suitable for CAPI than for CATI (LFS).
EE	Alignment to the concept of non-formal education is possible. Same question asked in AES and LFS. The question includes guided on the job training which is then removed from LFS results.
EL	Only the effect of guided on the job training was tested. The exclusion of guided on the job training needs to be assured by an extra question or answer category.
FR	Alignment to the concept of non-formal education is possible. Same questions asked in AES and LFS (LFS question is changed from 2013). Guided on the job training is excluded from the LFS. It is important to mention leisure, otherwise it might be forgotten.
IT	Alignment to the concept of non-formal education is possible. Improved question(s) in LFS (structure, wording) result in slightly higher participation rates. Using the same definitions as well as the same description of education programmes in AES and LFS is very important. LFS excludes guided on the job training.
CY	Alignment to the concept of non-formal education is possible. Changing the question to the version recommended by the task force on education variables in the LFS works well and is better than the current wording. The exclusion of guided on the job training needs to be done thoroughly, to be assured by an extra question.
LV	Alignment to the concept of non-formal education is possible. The LFS question can be improved (more questions); this increases the participation rate (easier to remember) but adds some burden.
LT	Not investigated.
HU	Alignment to the concept of non-formal education is possible. Improving the question by providing a list of non-formal activities is considered to be useful.
MT	Alignment to the concept of non-formal education is possible (but question in LFS is simpler than in AES). LFS excludes guided on the job training.

NL	Alignment between AES and LFS is possible. Guided on the job training is excluded in the LFS.
AT	Alignment between AES and LFS is possible. Different wording of questions in AES and LFS produces different results. Guided on the job training is excluded in the LFS.
PT	Alignment to the concept of non-formal education is possible. Further harmonisation can be achieved through improving the variables according to guidelines of the task force on education variables. Guided on the job training contributes substantially to non-formal education and should also be covered by the LFS.
SI	Alignment to the concept of non-formal education is possible. The wording of the LFS question was revised in order to become closer to the AES; the new wording was well received. Guided on the job training has a significant impact on data on non-formal activities. Specific questions are necessary in order to ensure that guided on the job training is properly isolated among non-formal activities.
SK	Alignment to the concept of non-formal education is possible. Improved wording to better cover most frequent non-formal activities (yet specifically excluding guided on the job training) did not change participation rates; possible explanation: experienced interviewers provide enough information on non-formal education. One question and methodological notes are considered to be sufficient. Splitting into several questions would be too burdensome.
FI	Alignment to the concept of non-formal education is possible. Listing most frequent activities in the question is important, could be one question or split into several questions. Guided on the job training should remain excluded from the LFS. Including would require additional questions. Proposed sequence of questions: formal education, job-related non-formal education, non-job-related non-formal education.
SE	Alignment to the concept of non-formal education is possible. One item currently classified as formal education will be reclassified into non-formal education to further align to the concept of non-formal education.
NO	Concepts appear to be already aligned.

3. Feasibility of the reference period of 12 months in the LFS

Testing related to the feasibility of the 12 month reference period in the LFS varied a lot across participating countries. Depending on the national rotation scheme, different implementation scenarios are possible, such as an implementation via a 3 month reference period. The following development focuses on implementation of a 12 month reference period.

In most countries, the introduction of a 12 month reference period has a limited effect on the participation in formal education while it has a significant effect on participation in non-formal education.

Arguments in favour of the 12 month reference period are the actual results of the tests: most countries indicate that the 12 month reference period generates a more comprehensive measure of participation in / access to education and training as the longer reference period allows capturing more education and training activities and is less influenced by seasonal

effects. Several countries reported that the questions and instructions worked well and that the recall is not of major concern for the education variables.

The most frequently reported concerns are the additional response burden, quality problems due to proxy answers and recall problems for the 12 month reference period, in particular for the number of hours in all taught-learning activities. Accordingly, inconsistencies can be found when answers are compared with answers given in previous participation in the LFS (e.g. DK, AT). Another concern expressed is that the usual LFS reference period is 1 or 4 weeks – introducing an additional reference period for education variables could be confusing.

In general CAPI is considered to be more suitable for the 12 month reference period; CATI interviews are relatively fast, with no time to let the respondents think about the answer.

Some countries propose to rather ask for the 12 month reference in an ad-hoc module.

A possible, more efficient implementation is to first ask the regular questions with a 4 week period, followed by a question with a reference period of 12 months whenever a respondent answered ‘no’ for the 4 week period (e.g. BG, DK, IT, CY, LV, HU for formal education, NL, PT, and others).

Several countries indicate that even if the questions are asked for a 12 month reference period, the 4 week reference period should be kept (time series, national purposes).

Summary: in general, the 12 month reference period is considered to provide the more comprehensive measure for participation in education and training and appears feasible but it has a price, mainly the increased response burden and the quality concerns due to answers by proxy and memory effect. However, in order to counter steer at least some of these concerns, corrective measures are proposed by several countries in order to minimise the additional burden (e.g. only ask the questions for the 12 month period to those who said ‘no’ for the 4 week period) and the memory effect (e.g. provide further explanations, allow time to remember). Using the panel structure of the LFS was also tested, but not always considered a good option due to the extra burden (question asked 4 times) and the technical complexity to implement it (especially the weighting).

Table 3: 12 month reference period in LFS – details by country

BE	12 months is considered to be feasible in LFS. The question is to be adapted so that interviewer or memory effects are reduced to a minimum (e.g. splitting up long questions but giving more time to the respondent to remember all the activities). While 12 month period should be added, the 4 week period should be kept (series).
BG	The LFS rotation scheme is 2-(2)-2. Two options for asking the 12 month question are described but both show as much pros and cons (burden, reference period, technical difficulty). No further comments on the general feasibility of the question for the 12 month reference period in the LFS.
CZ	In LFS testing, the 12 month reference period significantly increases participation in non-formal education (last 4 weeks: 13%, last 12 months: 27%). No further comments on the general feasibility of the question for the 12 month reference period in the LFS.
DK	Formal education: 12 month reference period has a limited effect on participation rates (2pp).

	<p>Non-formal education: 12 month reference period increases the participation rate from 21% to 49% (job-related courses for instance are concerned by the increase). Early leavers from education and training remain unchanged while participation in lifelong learning (LLL) increases from 25% to 56%. No further comments on the general feasibility of the question for the 12 month reference period in the LFS.</p>
EE	<p>Formal education: 12 month reference period has a rather limited effect (4 weeks: 5.4%, 12 months: 6.6%). Non-formal education: 12 month reference period increases the participation rate from 10.2% to 22.1%. Participation in LLL increases from 14.8% to 26.2%. Both reference periods are considered to be interesting: 4 weeks should be kept for time series; 12 months should be added as module, both to be produced annually.</p>
EL	<p>Formal education: 12 month reference period has a rather limited effect. Non-formal education: 12 month reference period results in four times higher participation rate than the 4 week reference period (people report more learning activities, notably job-related activities). Participation in LLL increases from 3.5% (4 weeks) to 9.9% (12 months). No further comments on the general feasibility of the question for the 12 month reference period in the LFS.</p>
FR	<p>The grant does not test the feasibility of the 12 month question in LFS. Rather, a method is tested to calculate participation in 12 months from quarterly results based on an annual longitudinal panel.</p>
IT	<p>Formal education: 12 month reference period has a rather limited effect (4 weeks: 2.8%, 12 months: 3.1%). Non-formal education: 12 month reference period increases from 4.9% (4 weeks) to 16.6% (12 months). No further comments on the general feasibility of the question for the 12 month reference period in the LFS.</p>
CY	<p>Formal education: very small effect between 4 week and 12 month reference periods but increased burden when 12 months is used. Non-formal education: 12 month reference period captures more but it requires more efforts from both interviewers (further explanations) and respondents (memory effect, burden).</p>
LV	<p>Formal education: 12 month reference period only has a minor effect. Non-formal education: 12 month reference period increases participation rate substantially. Difficulties reported refer mainly to answer by proxy and recall. The interviewer instructions itself worked well.</p>
LT	<p>Formal education: results are very similar. Non-formal education: 12 month reference period increases participation by a factor 2.4. Only 5% of respondents in the test found it difficult to fill in the questionnaire. Question on hours in the learning activity was most difficult.</p>
HU	<p>12 month reference period has a significant effect on participation in education and training (4 weeks: 3.1%; 12 months: 19.1%). Interviewers evaluated the questions as clear and easy to follow; most problematic for respondents were the hours spent in non-formal education. Use of a 12 month reference period in LFS is considered to be useful from the LLL policy perspective.</p>
MT	<p>12 month reference period has a small effect on formal education (from 10.6% to 12.7%) and a substantial effect on non-formal education (from 4.3% to 8.9%). LLL indicator increases from 6.8% to 13.7%. Use of different reference periods in LFS might be confusing for respondents. Not possible to ask for both 4 week and 12 month reference periods as it increases response burden.</p>

NL	Not further investigated (only the difference between AES and LFS with 12 month reference period was tested).
AT	Recall problems: for LFS the shorter reference period is recommended.
PT	12 month reference period increases participation in formal education from 10.8% to 16.6%. For non-formal education (including guided on the job training) it increases from 7.4% (4 weeks) to 29.9% (12 months) Participation is higher in case of self-response (non-proxy interviews). New questions (12 months) in LFS to be asked once per year, to avoid excessive burden. 4 week reference period should be kept (to keep the series).
SI	Formal education: not investigated. Non-formal education: a longer reference period increases participation. Participation in LLL increases: 17.4% (4 weeks), 35.3% (12 months) – but double reporting likely due to rotation scheme. The evaluation of asking for the 12 month reference period was positive; the memory effect is not a problem for education variables.
SK	Formal education: 4 week reference period is the best reference period for the LFS and should be kept (good coverage of formal education). Non-formal education: 12 month reference period has best coverage for non-formal education but concerns due to answer by proxy and memory effect. 3 month reference period would be better for memory effect but difficult to consolidate annual results. It is also more burdensome (question asked each quarter instead of once a year in the 4 th quarter for instance). Use of different reference periods in LFS might be confusing for respondents. LFS not considered suitable for education variables, ad-hoc module every 3 years on non-formal education would be better. Formal education with 4 week reference period can stay in LFS.
FI	The 4 week question should be asked regularly along the calendar year (series). 12 month question should be asked in one rotation group (enough to produce yearly average).
SE	Both 3 and 12 months were investigated; 12 months is more suitable if the objective is to be comparable with AES data and less burden as only to be asked in quarter 4. 4 week reference period should be kept. Concerns on burden and on the use of different reference periods in the LFS.
NO	Formal education: participation rate increases from 16% (4 weeks) to 21% (12 months) (2010). Non-formal education: participation rate increases from 14.1% to 40.0%. (2011). Changes are more pronounced in higher age groups. Respondents can remember activities during the last 12 months but have more difficulties with questions on intensity and other details. Forms of learning are not much of a problem. Using 12 months would improve the indicator and provides a more realistic picture.

4. Comparison of results between AES and LFS

Only 11 countries investigated the differences in results from the two surveys when both refer to a 12 month reference period.

While the participation rates for formal education are fairly similar, there remain often significant differences for non-formal education, even if the coverage is the same (i.e. coherent inclusion or exclusion of guided on the job training in both AES and LFS).

The reasons for differences in results of AES and LFS can be summarised as follows:

- Proxy answers;
- Survey aim (labour market survey vs. education survey);
- Data collection methods (CATI, CAPI);
- Differences in the question(s) asked;
- Length and pace of the survey;
- Memory effects;
- Guided on the job training explains a part of the difference in level between AES and LFS but not all.

Summary: the levels of participation rates obtained from LFS are systematically lower than those obtained from AES even when asking the same questions and / or using the same concepts for formal and non-formal education. This can largely be explained by the survey design (answer by proxy, aim of survey, data collection method).

Table 4: Comparison AES / LFS results – details by country

BE	Cognitive testing allows conclusion that changes to LFS (questionnaire) would bring results AES/LFS close to each other.
BG	NA
CZ	NA
DK	Formal education: AES: 12.6%, LFS 7.5%. Surprising result; survey context could explain this (labour market survey vs. dedicated education survey). Non-formal education is covered differently in AES and LFS but results are very similar (AES: 52.7%, LFS 52.3%). Quality concern: the longer period (12 month reference period) might lead to 'yes' regardless of actual participation.
EE	Identical questions in AES and LFS. Formal education: AES: 6.6%, LFS: 6.6%. Non-formal education: AES: 48.0%, LFS: 22.1%.
EL	NA
FR	When estimating the participation during the last 12 months through the LFS based on quarterly data, participation in LLL is 22.8% in LFS and 28.3% in AES (both 2006); the gap is due to the LFS questionnaire (version before improvements which take effect in 2013).
IT	Formal education: AES: 2.6%, LFS: 2.8%. Non-formal education: AES: 21.0%; LFS: 16.6%; same coverage, i.e. AES results without guided on the job training. (If guided on the job training is included, the participation rate from AES is 34.3%). Same questions can yield fairly comparable results in AES and LFS. Regular reporting on participation in LLL during the last 12 months is feasible from LFS, at least for main indicators and few breakdowns.
CY	NA
LV	Formal education: AES: 4.3%, LFS: 3.1%. Non-formal education: AES: 30.0%, LFS: 13.9% (both including guided on the job training). The large number of proxies in LFS could explain this (41% proxies in the LFS quarter used for the test versus no proxy allowed in the AES).
LT	NA
HU	Formal education: AES: 6.5%, LFS: 4.0% Non-formal education: AES: 37.6%, LFS: 15.9% In LFS formal education covers qualifications outside the UOE scope.
MT	Formal education: AES: 4.4%, LFS: 5.5%. Non-formal education: AES: 20.7%, LFS: 10.0% (both excluding guided on the job training but

	data refer to different reference years). Differences could be explained by proxy answers and by more precise questions in AES.
NL	Formal education: no information on the 12 month reference period from the LFS. Non-formal education: AES: 35%, LFS: 24%. Reasons for the difference: design of the survey, answers by proxy, collection modes, weighting.
AT	NA
PT	Formal education: AES: 15.4%, LFS: 16.6%. Non-formal education: AES: 39.2%, LFS: 29.9% (including guided on the job training). Harmonisation of concepts brings results AES/LFS closer to each other.
SI	NA
SK	NA
FI	NA
SE	NA
NO	LFS results with a 12 month reference period are slightly lower than AES mainly because of exclusion of guided on the job training in LFS.