

# The IUFRO Task Force „Education in Forest Sciences” (EFS) Explores Expected Learning Outcomes (ELO)

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ARTICLE

## **Abstract**

What do our students learn? What should they learn? Do they learn, what they will need later? What would our graduates make successful in their careers, in the labour market? Finally: Do university exams assess what professors intend to teach, what student want to learn, what the labour market needs? The IUFRO Task Force „Education Forest Sciences” (EFS) tries to find some answers to these questions in a series of focus group discussions. The basic idea is to take advantage of having experts together at conferences: students, professors, researchers and employers. The groups of experts will be different, depending on the respective scopes of the conferences. With a series of such discussions a broad field of expertise and especially of employment will be covered. Thus, with an attempted standardized procedure, with different profiles of experts at different occasions views and experiences will be explored about the development of competences, the reasons for this development and about changes needed.

So far focus group discussions on expected learning outcomes have been carried out with five discussion groups at three different conferences on higher education in forestry. Experiences lead to the question on how to improve the procedure.

**Keywords:** forest sciences education, ELO, graduates, careers, focus group discussion

## **Streszczenie**

Czego się nasi studenci uczą? Czego się uczyć powinni? Czy uczą się tego, co będzie im przydatne w przyszłości? Co sprawi, że absolwenci studiów leśnych osiągną sukces zawodowy? I w końcu: czy egzaminy oceniają to, co wykładowca chciał przekazać, czy to, co student chciał się nauczyć, czy to, czego oczekuje rynek pracy? IUFRO Task Force „Education Forest Sciences” stara się uzyskać odpowiedzi na te pytania realizując serię skierowanych paneli dyskusyjnych (ang. focus group discussion). Idea tych paneli polega na wykorzystaniu sytuacji, gdy w jednym czasie i miejscu znajdują się różne grupy eksperckie (studenci, wykładowcy, naukowcy, pracodawcy). Oczywiście będą się one różnić w zależności od charakteru i tematyki spotkania, jednakże przeprowadzenie całej serii takich paneli pozwala, przy wykorzystaniu zestandaryzowanych procedur, objąć badaniami możliwie szerokie spektrum zagadnień i grup docelowych. W ten sposób możliwe staje się poznanie różnych opinii i doświadczeń w kwestii rozwoju kompetencji, powodów tego rozwoju i jego zmian.

Do tej pory na trzech różnych konferencjach poświęconych uniwersyteckiej edukacji leśnej przeprowadzono pięć skierowanych paneli dyskusyjnych na temat oczekiwanych wyników nauczania (ang. expected learning outcomes). Uzyskane wyniki prowadzą do pytań o to, jak usprawnić zastosowaną metodę badań.

## Introduction

Formulated and expected learning outcomes (ELO) are benchmarks for judging the quality of a study programme as a programme and of its performance in reality. This is based on the match of contents and methods of courses as well as assessments of the learning results with the competences needed by the graduates.

This reasoning has led the IUFRO Task Force EFS (Education in Forest Sciences) to look into the interaction of expected learning outcomes and teaching and learning processes in higher forestry education programmes in different parts of the world. The idea is to find out together with students, professors as well as practitioners the state of practice, matching with the perceived needs and possible ways of improving formulating of ELO and teaching and learning practice, learning from each others' experiences. A short report of the first attempts including some results from a discussion round at the Latin American Forestry Congress in Lima 2011 has been given in the forum of the EFS (Lewark 2012).

We may assume that success of a university graduate on the labour market will depend on his or her competences relevant for a certain task or occupation. These competences are at least partly a result of the learning process during his or her studies. Outcomes of higher education are connected with student input, resources and processes. It is helpful to think backwards, starting from the competences as outcomes of study programmes, and considering the responsibility of university teachers for designing of study programmes and organising the learning process of the students.

## Application of focus group discussions

The basic methodical ideas for exploring ELO for EFS are:

- to find out in a set of focus group discussions
- with different groups of stakeholders (from universities in different parts of the world, of employer representatives, of students and young graduates, of higher education specialists, from education administrations and higher education policy)
- about the importance and role of ELO for the labour market and career chances of graduates,
- about the role of ELO in curricula and exams, in theory and practice
- about needs of more considering of ELO
- about possible ways of doing so.

Employing focus group discussions seems an appropriate approach as a „focus group is a form of qualitative research in which a group of people are asked about their perceptions, opinions, beliefs and attitudes towards a product, service, concept, advertisement, idea, or packaging. Questions are asked in an interactive group setting where participants are free to talk with other group members” (Wikipedia, retrieved in January 2012).

The methodical and practical issues to be discussed and decided for our application have been formulated in a discussion guideline:

Participants wanted: 7 to 12 scientists, practitioners, students (women and men) representing stakeholder groups

Documentation: written notes and audio recording for later transcription

Organizational framework: in connection with conferences and other meetings at a place where participants can feel comfortable and not being disturbed by others or by duties.

Time: In total 1½ to 2½ hours (including refreshment)

Evaluation of the discussion: directly after the discussion the moderator and the observer(s) should spend some time for reflections and comparing/discussing their impressions and interpretations (notes should be taken), which may also be used for continuous improvement of the discussion guideline.

### **Contents to be discussed:**

- background, education of participants of discussion, former and present occupations which lead to being experts on higher education in forestry (and wood science) including ELO and knowledge about careers and success of graduates,
- which curricula to talk about,
- history and present situation of respective higher education institution(s),
- study programme(s),
- intake numbers, numbers of applicants, ways of selection,
- numbers of successful graduates, dropouts,
- study objectives, in regulations and formulated by discussion participants, hidden agenda,
- lengths and characteristics of study programme(s), structures, obligatory and optional parts,
- main contents of study programmes: general agreement? recent developments?
- any publications about that?
- competence level of graduates, general level of performance,
- feedback from labour market,
- **matching of study objectives - contents and structures of study programmes - assessment / exam practice - competences achieved - needs of labour market,**
- description of labour market aimed at, development of labour market, homogeneity of labour market, employment sector,
- which part of the labour market aimed at with study programme(s),
- in which way could or should study programme(s) be developed to better prepare graduates for their occupations, tasks?
- extracurricular activities - prescribed like internships, role of thesis work in cooperation with employers, or non-regulated activities, which have occurred, which where good examples.

A discussion strictly guided through all the topics by the moderator would not be meaningful. So with the topics and questions in mind the moderator will lead the discussion structured by just a few lead questions, which give the participants impulses for their statements:

- What is professional activity to prepare for?
- How are the actual competences of the graduates seen and valued?
- What changes are needed in the curricula and the learning and teaching processes to improve the competences of the graduates?

Each discussion round has been started with an impulse presentation describing recent developments of higher forestry education in Europe under the Bologna process as a starting point and as a basis for comparison.

### **First experiences**

So far, in 2011, focus group discussions on expected learning outcomes have been carried out with five discussion groups at three different conferences (table 1)<sup>1</sup>.

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<sup>1</sup> moderated by the author and Desiana Barianti, PhD researcher at the Faculty of Forest and Environmental Sciences of the University of Freiburg

Table 1: EFS focus group discussions 2011

conference	number of groups	number of participants	language / method of recording
SILVA Network annual conference, St. Petersburg, Russia, September 2011	2	12/12	English (few native speakers)
IUFRO conference „Competence development for forestry”, Freiburg, Germany, September 2011	2	9/10	English (some more native speakers)
RELAFOR session at Latin American Forest Congress; Lima, Peru, October 2011	1	ca. 50	Spanish (introduction in English, discussion with translation Spanish/English <sup>2</sup> )

Experiences from five focus group discussions include: the discussions have a value in itself as forest scientists involved in teaching in their respective universities have a platform where they may share experiences. They get ideas about developments elsewhere, like the trend to move to student centred learning methods - from teaching to learning. They feel supported and encouraged with their own attempts. The response throws a light on the importance of teaching and a great interest in learning and teaching processes, thus also demonstrating the need of initiatives like that of EFS.

On the methodical side, experiences with the first five focus group discussions showed that

- they were running differently depending on number of participants, and
- different times were allowed by conference organizers;
- each time the discussions started with answers around the table, one by one, but in the course of the discussion the focus was depending on those, who wanted to contribute,
- the reduction of the detailed list of questions to be covered to three lead questions resulted in lively discussions,
- but then the direction of the discussion was very much determined by the experience and interest of the participants (sometimes of course dominated by a few, or the discussion following the first upcoming important questions),
- problem of language common to participants and moderators: this is a strong restriction; at international conferences there will always be a share of non-native speakers; quality of discussion depends on this share and on the mastering of the language of discussion.

The general direction of the discussions was similar, but the single discussions differed very much (also between the two moderators, when two discussions were run parallel), so that the intended standardization has only been realized to a limited degree.

### Methodical conclusions

The organizers should look for ways of more standardization in terms of times allowed for the discussions and the sequence of topics, at the same time working for more tangible discussion results. This may be achieved by more detailed impulses like results of graduate or employer analyses done earlier. This could be followed by more specific comments asked for on the data or

<sup>2</sup> thanks to Osvaldo Encinas for organisation and translation

statements presented, referring to the positions of the participants, partly using short questionnaires with closed questions.

In this way the statements of the discussions may be easier evaluated and lead to clearer results with a better comparability. The detailed evaluation of the first focus group discussions according to methods of qualitative social science methods with transcriptions, content analyses and interpretations is laborious and still ongoing. In general the outcomes of the focus group discussions on ELO under the umbrella of EFS will contribute to a better understanding of ongoing developments of changes of curricula and in the labour market and ultimately to improvement of the competences related quality of learning and teaching in forest sciences programmes.

**Bibliography:**

Lewark, S. 2012: Discussing Expected Learning Outcomes as EFS activity at the Latin American Forest Congress in Lima 2011. EFS Forum, <http://www.tf-efs.pl/en/>  
<http://www.iufro.org/science/task-forces/education-forest-science/>

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