Learning Experience Questionnaire
- Course analysis for development

Version 2

ECE Teaching and Learning in Higher Education no2

Preface

The LEQ process has been developed to allow teachers to work systematically with course development. As an increasing number of teachers will be using the LEQ process for course analysis, you will be able to collaborate with other teachers in your course analysis and thus mutually benefit from each other's experience. We are confident that the implementation of course evaluations and course analyses will be both easier and more efficient. In conjunction with the LEQ process, seminars and workshops on various pedagogical topics are provided, all of which will give you as a teacher the best possible conditions for developing your course.

Performing a course evaluation is also important for assessing a change implemented in a course and for determining whether the change is successful or not. You can do this by examining the students' course evaluations (course questionnaires) over several years and seeing how the students' perception of the learning environment of the course has changed. Another important measure of student learning is how well they perform in the course assessment. This is not normally included in the course evaluation; instead, it consists in what is known as throughput data, such as performance and pass rate.

Seen from a quality perspective, course analyses are also used by those responsible for undergraduate education and those responsible for the programs that include the course. This is to ensure that the objectives of the program are fulfilled, and course analyses thereby constitute a kind of measure of quality. If the course evaluations and the course analysis for all courses are conducted in the same way and thus provide the same kind of information, this allows comparisons to be made between courses but above all between different offerings of the same course. The LEQ process will help in this respect by offering a well-balanced questionnaire combined with a process for implementing course analysis, which in the long run will develop a community of practice among the teachers at KTH.

The LEQ guide has been developed to describe briefly the various stages in the LEQ process. It also describes the scientific background of the questionnaire. The guide is written for different target groups, of which teachers and students are the most important. In future, the LEQ guide will also be expanded to encompass other target groups such as assessors of teaching skill.

Working with LEQ is a KTH scheme that started in 2013 and that, at the time of writing, is gaining popularity at KTH. We have invested great efforts in designing a process that is supported by scientific research and tried and tested experience. We believe that LEQ constitutes a great leap forward in ensuring quality in undergraduate education at KTH.

Stockholm, December 2016

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Contents

Terminology

Course evaluation *Kursvärdering*[1]	Evaluation (värdering) of a course, submitted by students. According to The Higher Education Ordinance, it is a requirement to give the students the opportunity to express their experiences and views after a course has finished.
Course analysis *Kursanalys*	The teacher's summary and analysis of the course evaluation and the conclusions drawn from it. Each institution may determine which information is to be included in a course analysis.
Course questionnaire *Kursenkät*	A questionnaire in which the students are given the opportunity to systematically put forward their views on, and experience from, the course. Conducting a course questionnaire is the most common way of carrying out a course evaluation, but student interviews and informal talks with small groups of students can also occur, and be used just as well.
Course data *Kursdata*	Objective information about the course, such as the course number of credits, number of students and responsible teachers for example.
Performance rate *Prestationsgrad*	The sum of the ECTS credits awarded to all of the students in the course offering after all of the compulsory course modules have been assessed divided by the number of possible credits for the course (the course credits multiplied by the number of participants in the course offering).
Pass rate *Examinationsgrad*	The number of students on a course who have passed all compulsory course modules divided by the number of students on the course.

[1] This is not to be confused with the Swedish term *Kursutvärdering,* which, in the current context, is a compilation of the course evaluation, the course analysis and the course data.

1 Introduction

The Higher Education Ordinance stipulates that students who take a course must be given the opportunity to hand in their opinions on the course in what is called a course evaluation. It is further stipulated that the teacher in charge must carry out a course analysis, as it is known, based in part on the students' course evaluation (for more information, see Section 1.5). Continuously conducting course evaluations and course analyses allows courses to be followed up over time and is therefore very important for the quality and quality assurance of courses and degree programs at KTH.

The course analysis has several aims. The course analysis should document the teacher's summary of the students' views. It should also enable the teacher to reflect on and describe what course development should be carried out in order to improve the students' learning and the learning environment on the course.

The course evaluation, which allows the students to submit their views on the course, is often carried out in the form of a course questionnaire in which the students answer questions or express their opinions on statements. Previously, questionnaire surveys have often consisted of paper forms. A serious shortcoming of paper forms is that they often allow relatively little space for comments. Moreover, statistics usually have to be produced manually. A further shortcoming is that the restricted space means that the questions are worded so that either the answer alternatives are *yes/no*, or the answers consist of some kind of grading scale on various aspects, for instance, *What do you think of lecturer NN? What do you think of Lab 7?* or *What do you think of the course literature?* In consequence, course questionnaires have traditionally consisted of investigations into factors that are often not directly linked to the learning taking place in the course or to how effective the learning is. A further shortcoming of paper questionnaires is that only those students who are present when the questionnaire is handed out are given the chance to answer it.

The introduction of web-based questionnaires has remedied some, but far from all, of the drawbacks of the paper questionnaire. The advantages of web-based questionnaires are above all that they provide better possibilities for analysis and automatic data compilation, and that the questionnaire is accessible to all course participants, in contrast to the paper questionnaire, which is only available to those who are present when the paper is handed out. A further advantage of web-based questionnaires is that the open-ended answers are generally twice as long as those in the paper questionnaires (Borell et al., 2008).

1.1 Response rates and web-based questionnaires

However, web-based questionnaires introduce a new problem: low response rate. Getting students (or people in general) to fill out web-based questionnaires has proved to be more difficult than getting in answers to paper questionnaires. A crucial question connected to this is whether the answers on the web-based questionnaire can be regarded as representing all of the students when the response rate is low. This has been investigated by Borell and Gudmundsson (2009). Two courses at the Faculty of Engineering, LTH, Lund University, were studied and statistical analysis showed that the difference in answers between students answering a web-based questionnaire and those that do not is very small. They drew the conclusion that the students who answer using a web-based course questionnaire are representative of all students.

A further factor that has proved to be important with respect to response rate is when the questionnaire is carried out. Earlier, it was easy to distribute a paper questionnaire in conjunction with one of the final scheduled activities on the course and the students were then allowed time to fill it out. A web-based questionnaire is often sent out by e-mail, which means that the students themselves choose when to read the e-mail and often there is no classroom time allocated to filling out the questionnaire. Consequently, the response rate in general is lower. Regular reminders increase the response rate but may also be experienced as irritating by the students who have not submitted their questionnaire.

1.2 The LEQ process in brief

As of 2014, a new course evaluation and analysis tool (LEQ) is in place, as described in more detail in Section 2. This section explains how the different parts of the LEQ process work together and what could be the advantages of using LEQ as course evaluation and course analysis tools. In the intended course development cycle that comes after the LEQ survey, it is then possible to take part in seminars and workshops arranged on topics whose development potential has been identified within the LEQ process.

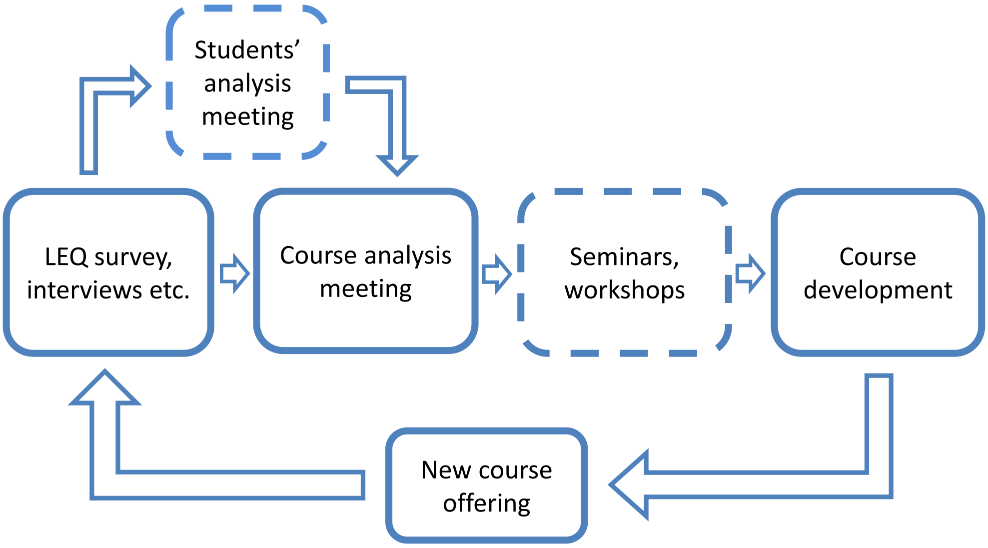

Figure 1: The LEQ process for course analysis and course development step-by-step. The boxes with solid boundaries indicate necessary steps in the process.

The LEQ process can be described simply as a multistep process consisting of

1. Course evaluation with the LEQ
2. Course analysis supported by LEQ meetings
3. Competency development of the teacher consisting of, for instance, seminars and workshops
4. Course development before the next course offering.

The questionnaire
The LEQ is a web-based questionnaire containing 22 statements and four open-ended questions. Besides this, the questionnaire contains three questions to enable analysis of data based on the students' profile (work effort, gender, degree program/year). Students' experience of the learning environment has been shown to differ somewhat depending on their profiles. Comments submitted by students who have devoted a great deal of time to the course may be more informative that from those who have devoted less time. Pilot studies have shown that female students' experience of the learning environment differs from that of male students. In the same way, the perception of the learning environment differs among students with differing backgrounds (e.g., between a Swedish undergraduate student and a foreign master's student taking the same course). See Section 2.

Questionnaire report and preliminary course analysis
When the LEQ survey has been concluded, the teacher is given a questionnaire report in which the student responses have been compiled. Based on this report, the teacher then conducts a preliminary course analysis. To simplify the analysis step, a course analysis tool has been developed. This tool helps the teacher to put together a preliminary course analysis. See Section 3.4.

Course analysis meeting(s)
If several teachers have conducted an LEQ survey and analyzed their data individually, they schedule a course analysis meeting where they can meet and discuss the outcome. The strength of the discussion lies in the fact that all of the participants have conducted an LEQ survey and thus have an understanding of the learning environment in their respective courses, which constitutes a common ground for discussion. This meeting provides the teachers with an opportunity to discuss strengths and weaknesses in the learning environment of their courses and they can then benefit from the experiences of other teachers. Thus, each individual teacher has the support of the other participating teachers in his/her course analysis. See Section 3.5.

In parallel, a group of students can have a course evaluation meeting where they analyze the results from their point of view, clarifying the results and proposing ways forward to the teacher. The students' analysis meeting serves as an input to the teachers' analysis meeting and should preferably be carried out before the teachers' meeting. See Section 5.

Final course analysis
What remains for each teacher after the course analysis meeting is to go back to the course analysis tool and update the preliminary course analysis, supported by the results from the course analysis meetings. When the teacher has completed the update, he/she can then definitely save the final course analysis.

1.3 What are the advantages of using LEQ?
Using LEQ means that the course evaluation and course analysis are harmonized, which then allows experiences to be exchanged between courses at program level but also enables comparison between different offerings of the course.

By using the course analysis tool, the teacher will not only use a course analysis that meets the requirements of the Higher Education Ordinance and KTH, but will also initiate a process for course development that can strengthen the learning environment of the course. The course analysis may well be conducted together with other teachers.

At program level, a Program Director can gain an overview of the learning environments on the courses in the program. Thus, from a program perspective, the LEQ process also enables opportunities for program development, since the Director can identify potential areas for development at program level.

1.4 The different LEQ target groups

The primary user of LEQ is the teacher. The LEQ process makes course analysis and course development easier for the teacher and allows discussions with other teachers who share the same basis for discussion through LEQ. Other users of LEQ results could be students reflecting in groups on the learning environment in various courses and giving teachers further feedback for their course analyses. Further users of LEQ results or of course analyses based on LEQ might be, for instance, Directors of Study, Program Directors and Heads of Undergraduate Studies working on quality assurance, and those assessing teaching skills for recruitment or promotion.

Students may also find a course analysis useful! By studying the course analysis, the student can form a notion of what the teacher has previously considered necessary to change. Among other aspects, the student can see whether these changes have had results. The student play a very important role in this work and can support the teacher's change efforts by giving feedback on the course.

1.5 Requirements for course evaluation and course analysis

This section describes the requirements stipulated for course analyses by the Higher Education Ordinance and KTH.

What does the Higher Education Ordinance say?
Chapter 1 Section 14 of the Higher Education Ordinance regulates the responsibility of the university to conduct course evaluations and course analyses:

> *Higher education institutions shall enable students who are participating in or have completed a course to express their experiences of and views on the course through a course evaluation to be organised by the higher education institution.*
>
> *The higher education institution shall collate the course evaluations and provide information about their results and any actions prompted by the course evaluations. The results shall be made available to the students. Ordinance (2000:651)*

What do the internal KTH regulations say?
KTH has its own guidelines stating that the course analysis must contain the following parts:

- *The undergraduate students' view of the course, documented in the form of a questionnaire, notes from the student course committee, interviews or other appropriate ways.*

  This means that you as the teacher are responsible for documenting your students' opinions in an appropriate fashion, such as compiling the results of a course questionnaire.

- *An analysis by the teacher <u>responsible</u>, briefly commenting on quantitative data and the result of the questionnaire, presenting suggestions for measures and the time frame for the measures to be put in place.*

The teacher responsible refers to the teacher who has had the main responsibility during the course, often known as the course teacher responsible.

- *The course analysis must clearly show the development of the quality of the course from one academic year to the next.*

  This means that you should document the course organization including the changes that have been made, and also how they have contributed to the students' learning.

- *At the latest one month after the end of the course, the Director of Undergraduate and Master's Studies and the Dean of the School/School Board must be informed of the course analysis.*

  "The end of the course" refers to the week specified in KOPPS (Course and program directory) as the final date for the course. This normally coincides with the last scheduled activity (usually exams).

- *Quantitative data in the form of the number of registered students, performance rate (in per cent) and examination pass rate (in per cent).*

The complete guidelines can be found on the KTH Intranet:

https://intra.kth.se/styrning/regelverk/utbildning-pa-grund-och-avancerad-niva-1.660818

Do I meet these requirements if I use LEQ as a teacher at KTH?
Yes, if you use the tools for course evaluation and course analysis on the course website, you will fulfill these requirements (provided they are used in the way they were intended).

It is, however, the responsibility of the course teacher responsible to inform the Director of Undergraduate and Master's Studies and the Dean of the School/School Board in accordance with the above. On the course website, the course questionnaire and the course analysis are only accessible by the teachers and the examiner on the course offering in question.

2 Learning Experience Questionnaire

The Learning Experience Questionnaire process has been developed by teachers and educational developers at KTH. The aim has been to create a process with the potential to continuously:

1) Stimulate a meaningful exchange of ideas between teachers,
2) Contribute to improved quality in student learning,
3) Enable students to give feedback that can be converted into course development that promotes learning, and
4) Inspire and encourage teachers to find new ways of developing their professional roles.

2.1 Theoretical background

The aims listed above are achieved by LEQ focusing on a more overarching perspective on teaching and learning in the form of the *learning environment* of the course. What is meant by the learning environment of the course is the physical, social, and cultural context in which the student's learning takes place. LEQ investigates the student's experience of the learning environment based on a number of *learning factors* which, according to research and tried and tested experience, have proved to promote learning in higher education.[2] An example of one such learning factor is that we tend to learn more effectively if we can collaborate and discuss with others.

By mapping the learning environment of the course from a number of learning factors, the teacher can both identify stronger and weaker aspects of the learning environment, and carry on a dialogue with other teachers about how various aspects of the learning environment could be developed in order to support the students' learning. This also entails an opportunity to identify individual or general needs for competency development, which can be satisfied through different types of courses, seminars, or workshops. At the same time, the fact that the questionnaire is based on learning factors makes it easier for the student to give feedback that can be converted into course development that encourages learning.

A primary aim of LEQ is to stimulate a meaningful exchange of experience between teachers, *not* to grade the teacher as a person or the form of teaching as such. Rather, the intention is to support a *community of practice* for teachers.[3] In a community of practice, a teacher develops his/her teaching skill by exchanging experience regularly with other teachers who share an interest in teaching and learning. It is important to note that it is the individual teacher who decides which aspects of the learning environment should be given priority in a development effort, and how the development is to be implemented in the context in question. Since a given aspect may be developed in many different ways, each teacher is free to develop in his/her own way and at his/her own pace.

Different ways of developing a given aspect of the learning environment will have different significance for the students' learning, and the way that best encourages learning always depends on the specific context. *It is therefore the students' examination results that determine whether a change is favorable to learning or not, and to what extent*. Nevertheless,

[2] See Bain (2004) for an introduction to natural learning environments and learning factors in higher education.
[3] See Wenger-Trayner (2007) for a brief introduction to learning in communities of practice.

LEQ makes it easier for the teacher to pursue course development that promotes student learning, which students' examination results typically do not do.

2.2 Method of development

The structure and contents of the questionnaire have been developed with the help of the following procedures:

1) Compilation of a number of evidence-based learning factors from higher education pedagogy literature (see Section 2.3)
2) Thematic analysis of prioritized learning factors in order to identify different aspects of a natural learning environment (see Section 2.4)
3) Overarching categorization of these aspects based on the student's experience of meaningfulness, comprehensibility, and manageability in the learning environment[4]
4) Formulation of statements that investigate these aspects of the learning environment (See Section 2.5)
5) Student interviews to ensure that the statements are correctly interpreted as far as possible. If required → Step 4
6) Quantitative investigations of the response rate to the questionnaire statements in order to identify remaining problems. If required → Step 4

2.3 Learning factors that LEQ aims to investigate

We tend to learn most effectively (in ways that have a sustained, substantial, and positive influence on the way we think, reflect, act, or feel) when:

a) We try to answer questions, solve problems, or develop skills that we find interesting, exciting or important (stimulating tasks and exploration: 1, 2)[5];
b) We are able to speculate, test ideas (intellectually or practically) and learn from experience, even before we know much about the subject (own experience: 3);
c) We are able to do so in a challenging and at the same time supportive environment (challenge and support: 4, 22);
d) We feel that we are part of a community and believe that other people have confidence in our ability to learn (belonging: 5, 6);
e) We understand the meaning of the intended learning outcomes, how the environment is organized, and what is expected of us (clear objectives and organization: 7, 8);
f) We have adequate prior knowledge to deal with the current learning situation (adequate prior knowledge and understanding of the subject: 17, 9);
g) We are able to learn inductively by moving from concrete examples and experience to general principles, rather than the reverse (understanding of the subject: 10);

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[4] This categorization is based on Antonovsky's concept "sense of coherence" (SOC, Antonovsky 2005). Individuals with high SOC are characterized by good ability to take up and learn from challenges.

[5] The information in parentheses refers to different aspects of the learning environment and the numbering of the corresponding statements in LEQ.

h) We are challenged to develop a true understanding of key concepts and to gradually create a coherent whole from the content (understanding of the subject: 11);

i) We believe that the work we are expected to do will help us achieve the intended learning outcomes (constructive alignment: 12, 13);

j) We are able to try, fail, and receive feedback before, and separate from, each summative assessment of our efforts (feedback and security: 14, 15);

k) We believe that our work will be considered in an honest and fair way (security: 16);

l) We have sufficient time for learning and devote the time needed to do so (own effort and time for reflection: 0, 18);

m) We believe that we have control over our own learning, and not that we are being manipulated (variation and options: 19, 20);

n) We are able to collaborate with other learners struggling with the same problems (collaboration: 21).

2.4 Aspects of a natural learning environment

Below is a brief description of those aspects of a learning environment that LEQ aims to investigate.

<table>
<tr><td colspan="2">Meaningfulness – the emotional level
This component is characterized by the fact that the demands placed are experienced as stimulating challenges, worthy of investment and commitment. Being part of a social community typically contributes to this, as does the possibility of fulfilling these demands in one’s own way.</td></tr>
<tr><td>Aspect of the learning environment</td><td>Description</td></tr>
<tr><td>Stimulating tasks

Statement: 1

Learning factor: a</td><td>A natural learning environment is characterized by the students working with problems that they think are important or exciting, worth investing time and interest in. It may, for instance, be a matter of real or reality-based problems that require the students to master the subject and at the same time motivate them to assimilate the contents of the course – the knowledge and skills they need to solve the task.</td></tr>
<tr><td>Exploration and own experience

Statements: 2, 3

Learning factors: a, b</td><td>In a natural learning environment, the student can base his/her learning on experiences, both intellectual and practical.
This can be achieved, for example, if the learning activities contain elements of exploration, where the student gets feedback from the teacher and/or fellow students. It can also be achieved if the course contains practical or laboratory sessions.</td></tr>
<tr><td>Challenge

Statement: 4

Learning factor: c</td><td>In a natural learning environment, the student is faced with situations that are challenging, but which the student experiences as stimulating, and feels he/she can cope with.</td></tr>
<tr><td>Belonging

Statements: 5, 6

Learning factor: d</td><td>A natural learning environment is characterized by an open and inclusive climate, in which the student is part of a social community. A distinctive trait of such an environment is that everyone in the group (which refers here both to the whole teaching group and to a project group or a seminar group) has a voice and feedback is given respectfully and supportively.</td></tr>
</table>

Comprehensibility – the cognitive level This component is characterized by the fact that our interaction with the surrounding environment is experienced as structured, foreseeable, and comprehensible. The response from our surroundings agrees with what we expect in a given context.	
Aspect of the learning environment	**_Description_**
Clear objectives and organization Statements: 7, 8 Learning factor: e	In a natural learning environment, both the objectives of the course and its organization are clear and easily understood. This can be achieved by, for instance, providing concrete interpretations of the intended learning outcomes (ILOs) during the course. It can also be achieved in a course description which clearly specifies the organization/design of the course (e.g., the types of instruction chosen and the learning activities included in these) and which explicitly communicates the expectations and requirements placed on the student.
Understanding of the subject Statements: 9, 10 , 11 Learning factors: f, g, h	A characteristic of a natural learning environment is that the student is stimulated to use strategies for learning in depth. This can be achieved, for instance, by … …clearly showing how the course relates to prior knowledge. …connecting the subject matter to concrete examples that the students can relate to. …choosing learning activities that support the student's understanding of key concepts, and of how these concepts are related.
Constructive alignment Statements: 12, 13 Learning factor: i	A natural learning environment is characterized by a clear link from the ILOs via the learning activities to the examination. One indicator of such a learning environment could be that it is clear to the student how the learning activities in the course are designed to help him/her reach the ILOs. Another indicator may be that it is explicitly shown how a certain ILO will be tested and how the student's performance will then be assessed.
Feedback and security Statements: 14, 15, 16 Learning factors: j, k	A natural learning environment is distinguished by continuous feedback to the student on how he/she is faring in relation to the learning goals. Positive feedback reinforces the student's self-confidence and motivation. Feedback also gives the student an opportunity to reflect on his/her own learning. The feedback helps the student identify those aspects of the subject that need to be strengthened. Another factor that contributes to motivation is that the student is secure in the feeling that the work will be treated honestly and fairly.

Manageability – the instrumental level This component is characterized by the resources required to meet the demands experienced being available. "Resources" refers both to inner resources and to resources at our disposal in our surroundings.	
Aspect of the learning environment	***Beskrivning***
Adequate prior knowledge Statement: 17 Learning factor: f	In a good learning environment, it is clear what prior knowledge the student is expected to have. It is also clear to the student at what stage of the course particular prior knowledge is needed. Where possible, the course may well also provide resources for students that need to revise their prior knowledge (refresher lectures/refresher booklets/literature references/…)
Time for reflection Statement: 18 Learning factor: l	A good learning environment provides regular opportunities for the student to reflect continuously on his/her learning. The reflection can take place both individually and in groups. For example, it can be accomplished by scheduling the course so that the student has time to reflect between different teaching sessions, and by the course design actively supporting the reflection process by means of appropriate learning activities.
Variation and options Statements: 19, 20 Learning factor: m	A good learning environment contains varied learning activities and allows the student (at least to some extent) to choose what and how to learn (e.g., by choosing the topic of a project assignment).
Collaboration Statement: 21 Learning factor: n	A good learning environment provides the students with good opportunities to collaborate. The learning environment may, for instance, contain elements well suited to collaboration, where it is clear to the student what benefits this can be expected to have for learning. It may also facilitate collaboration between students (e.g., a course with virtual meetings/distance lectures also provides physical meetings containing group activities).
Support Statement: 22 Learning factor: c	In a good learning environment, the student has an opportunity to get help in his/her learning from teachers and fellow-students. This may constitute both teacher-led activities and clearly communicating what help can be obtained from the teacher (i.e., at what times and in what form), and the teacher choosing teaching activities that stimulate the students to collaborate.

2.5 The questionnaire (Version 3.1.3 – established 2016-10-18)

Based on the previous sections, the questionnaire consists of the statements and questions below.

Estimated work effort

0. How many hours per week on average did you work on the course (including scheduled time)? 0-2/3-5/… /39-41/≥41 hours/week (l)[6]

Meaningfulness – the emotional level

Stimulating tasks

1. I worked with interesting issues[7,8] (a)

Exploration and own experience

2. I explored parts of the subject on my own (a)
3. I was able to learn by trying out my own ideas (b)

Challenge

4. The course was challenging in a stimulating way (c)

Belonging

5. I felt togetherness with others on the course (d)
6. The atmosphere on the course was open and inclusive (d)

Comprehensibility – the cognitive level

Clear objectives and organization

7. The intended learning outcomes helped me understand what I was expected to achieve (e)
8. I understood how the course was organized and what I was expected to do (e)

Understanding of the subject

9. I understood what the teachers were talking about (f)
10. I was able to learn from concrete examples that I could relate to (g)
11. Understanding of key concepts had high priority h)

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[6] The letters in parentheses (a, b, …) refer to the learning factors that LEQ aims to investigate (see Section 2.3).

[7] The respondent expresses an opinion on each statement on a 7-grade Likert scale that ranges from the alternative "No, I strongly disagree with the statement" to the alternative "Yes, I strongly agree with the statement". There is also an eighth alternative, "X", if, for some reason, the respondent cannot express an opinion about a statement, along with the possibility of commenting in connection with each statement.

[8] In the electronic version of the questionnaire, the statements are presented in the following order: {7, 1, 18, 2, 17, 5, 14, 4, 20, 9, 11, 15, 12, 21, 6, 19, 8, 10, 22, 16, 3, 13}.

Constructive alignment

12. The course activities helped me to achieve the intended learning outcomes efficiently (i)
13. I understood what I was expected to learn in order to obtain a certain grade (i)

Feedback and security

14. I received regular feedback that helped me to see my progress (j)
15. I was able to practice and receive feedback without being graded (j)
16. The assessment on the course was fair and honest (k)

Manageability – the instrumental level

Adequate prior knowledge

17. My background knowledge was sufficient to follow the course (f)

Time for reflection

18. I regularly spent time to reflect on what I learned (l)

Variation and options

19. I was able to learn in a way that suited me (m)
20. I had opportunities to choose what to do (m)

Collaboration

21. I was able to learn by collaborating and discussing with others (n)

Support

22. I was able to get support if I needed it (c)

General questions

23. What was the best aspect of the course?
24. What would you suggest to improve?
25. What advice would you like to give to future participants?
26. Is there anything else you would like to add?

The student's profile[9]

27. I am: Female/Male/Other/Do not want to disclose
28. I am: International Master's student/International exchange student/ Swedish student in year 1-3/Swedish student in year 4-5/ Other type of student/Do not want to disclose

[9] This information is only used to compare how various groups of respondents experience the learning environment, where at least three respondents need to be part of a group for any results to be shown in the report.

3 Using LEQ for course analysis and course development

In this chapter, we describe the different steps of the LEQ process from the teacher's perspective, along with the formal requirements for course analysis. You will learn more about how to create an LEQ survey on the course website, interpret data in the LEQ report, create a course analysis, and prepare for a course analysis meeting with other teachers.

If you are a *teacher*, it will mainly be you yourself who uses your course analysis! First of all, the students' course evaluation and your analysis of it provide information about the students' experience of the learning environment in your course. You can easily see which aspects of the learning environment work well and which potentially need development. However, it is often difficult to see from the course evaluation *how* you should change your course.

3.1 The LEQ process

Figure 2 shows a schematic of the different steps in the LEQ process. The LEQ process was developed in order to support a community of practice for teachers leading to qualitative course development, in an effective and stimulating way. However, since teachers have different backgrounds and needs, it is up to each teacher to decide which steps are relevant. In its simplest form, the process involves the teacher carrying out an LEQ analysis and course development on his/her own, without collaborating with other teachers or any kind of organized competency development. The table below describes the different steps in a little more detail.

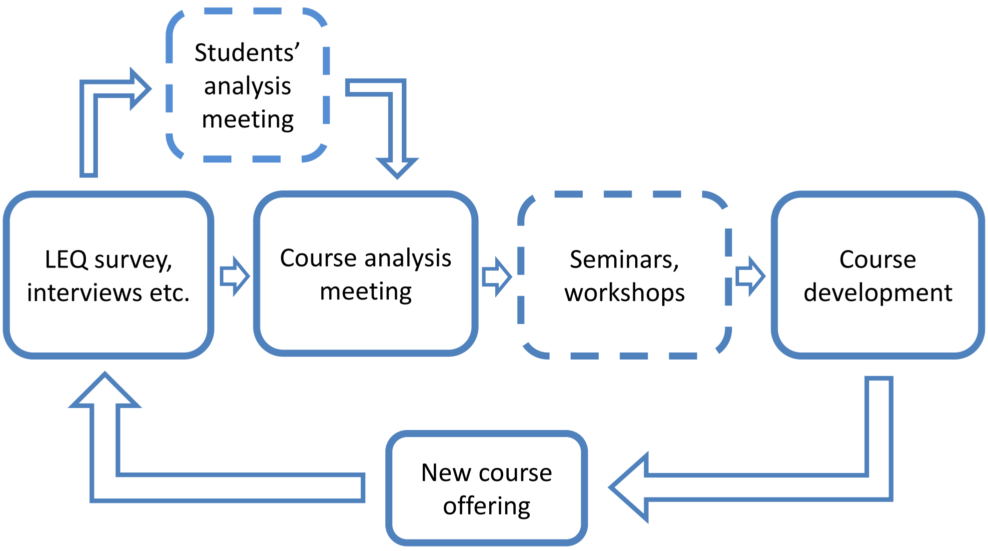


Figure 2: The different steps in the LEQ process.

Activity	**Content**
The course is offered	Completion of course offering
Data collection (LEQ survey, student interviews, etc.)	In the first step after the course offering is finished, you collect information about the students' experience of the learning environment in a variety of ways. Here, the LEQ constitutes a key component.
The course analysis begins	
Preliminary course analysis	As the teacher, you perform a preliminary analysis of the data in the LEQ report. Both the LEQ report and the preliminary course analysis may well be taken along to the course analysis meeting.
Course analysis meeting(s)	One aim of the LEQ process is to allow teachers to exchange experiences in a secure environment. The course analysis meeting constitutes a forum where teachers from different courses support each other in identifying suitable areas for course development, which can further improve the learning environment in the course. A group of students can have a similar meeting where they analyze the results from the learners' point of view. This meeting is preferably held before the teacher's meeting (see Section 5).
Course analysis	You write a final course analysis where you describe what you would like to develop for the next course offering and why.
The course analysis ends	
Competency-developing activities	To facilitate the implementation of suggested course development and broaden your competency as a teacher, you are given the opportunity to participate in seminars and workshops designed for this purpose.
Course development	You plan and implement the course development you have suggested in your course analysis.
New course offering	You implement a new course offering.

3.2 Creating a LEQ survey

On the course website is a tool for creating an LEQ survey. The tool is to be found under Administration/Course evaluations for the course in question. There, you can step-by-step create a survey by choosing a LEQ template, a course offering, and a starting and finishing date for the survey. If necessary, you can also add your own questions, which normally is not needed since the open-ended questions in the questionnaire are also usually effective in covering specific views. The questionnaire is then sent to the students by means of a standardized e-mail, and a reminder is sent every four days to those who have not yet answered. When at least three students have answered, an LEQ report is created, in which you can follow how the students are answering the questionnaire. The report is also available to other teachers on the course offering, and to the examiner. When the survey has been concluded, you receive a notification about this via e-mail.

There are two different versions of the questionnaire: LEQ Standard and LEQ Groups. The latter also includes a choice of study group on the course (Group 1, Group 2,…), which allows comparison of the results for different study groups on the course (e.g., different degree programs taking a course jointly). If you use LEQ Groups, you need to inform the students about which group they belong to (Group 1, Group 2,…). You can do this by including a message to the students when you create the questionnaire.

The LEQ survey is a way of obtaining the students' view of the learning environment on a course. However, there are several ways that can supplement the LEQ questionnaire and that provide relevant information for a course analysis. Examples of alternative methods include organized meetings with appointed student representatives (known as course committees or "link meetings"). You can also conduct structured interviews with the students or acquire information through more spontaneous conversations with individual students.

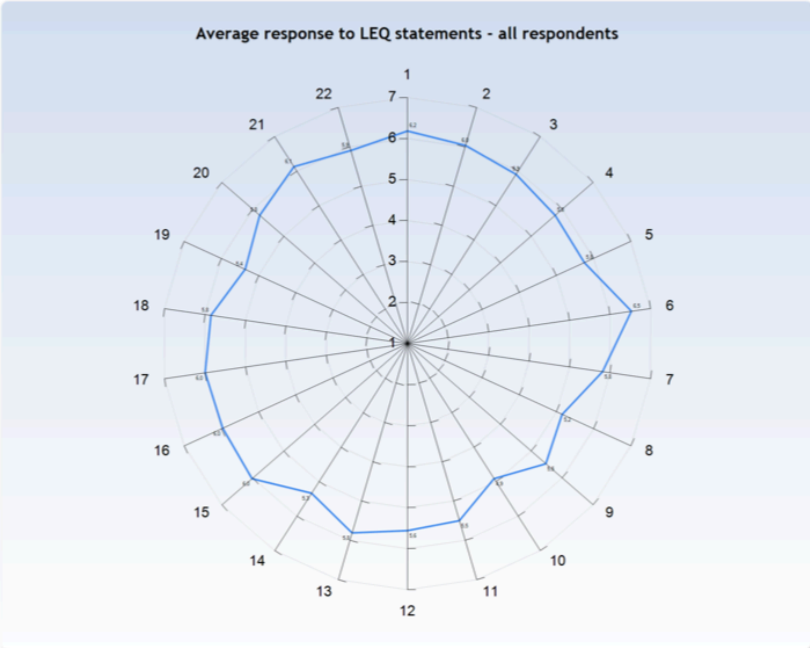
3.3 Interpreting data in the LEQ report

The LEQ report is designed to facilitate analysis of the course's learning environment. The students' response is compiled in the report as follows:

1. A bar chart showing the students' estimated efforts for predefined time intervals and the number of respondents in each study group (only applies to the questionnaire "LEQ Groups").

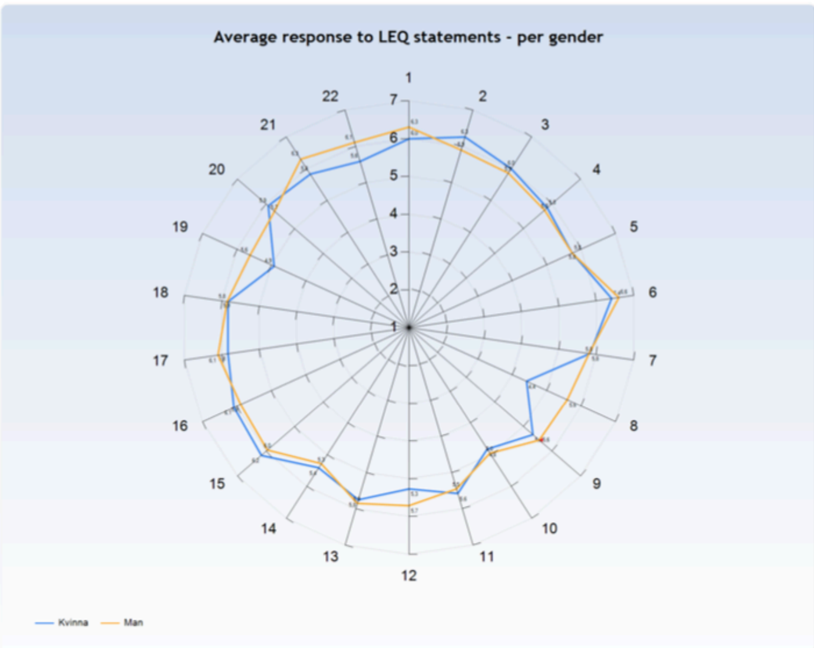
2. A polar diagram (see example below) showing the average response to the statements in the questionnaire on the learning environment, either for all respondents (LEQ Standard) or by study group (LEQ Groups). To simplify the analysis of the learning environment, the questionnaire statements are directly available in the report.

   <u>*Design considerations:*</u> *The advantage of a polar diagram is that the average response for all statements can be presented compactly (even for several groups at the same time) and that stronger and weaker aspects of the learning environment are easy to identify. It is, however, important to consider the outcome for each statement separately, and not only compare with the outcome of adjacent statements!*



3. Two more polar diagrams with the average response for different genders and student groups respectively. The report for LEQ Groups also includes a fourth polar diagram with the result for all respondents.

   <u>Design considerations:</u> *In this case, a group (e.g., international master's students) must include at least three respondents in order to be shown in the polar diagram. Note that the size of these groups is not given, which is necessary in order to ensure anonymity. The aim of dividing into different groups is to reveal any differences and to give you as a teacher an opportunity to reflect on, and work toward, creating a learning environment that is experienced as equally good for all groups of students.*



4. Answers to open-ended questions, classified according to the student's estimated effort (LEQ Standard) or study group (LEQ Groups).

   Design considerations: The students' answers to the open-ended questions generally give a good picture of what has worked well in the course and what has not worked as well. This provides you as the teacher with indications of the strategies students use to pass the course, and concrete ideas for course development.

5. Bar charts, one for each statement, which show the response to each statement in detail, either for all respondents (LEQ Standard) or for each study group (LEQ Groups). Any comments are classified according to the chosen response alternative (LEQ Standard) or study group (LEQ Groups).

   Design considerations: The comments often give an indication of how the students have been thinking and reasoning when they have expressed their opinions on statements, and they may be of some help when at a later stage you will convert the result into concrete course development.

3.4 Creating a course analysis

Once the questionnaire has been sent out to the students, you can also initiate a course analysis on the course website. With the help of an electronic form (template), you can gradually create a course analysis that encompasses the course organization, the students' efforts and results, analysis of the learning environment, analysis of answers to open-ended questions, and prioritized course development. The form is designed to help you to analyze the information in the LEQ report step-by-step and to document the result. Certain sections may also be initiated before the survey has been concluded, and as long as the course analysis has not been concluded, you can save a draft and take up working on it on a later occasion. For instance, you can create a preliminary course analysis by way of preparation for a course analysis meeting with other teachers (see Section 3.5), and then complete the course analysis after the meeting.

Course data and course results are generated automatically when the course results are registered. This is to allow you as the teacher to focus on the pedagogical aspects of the course analysis and at the same time fulfill the formal requirements of a course analysis.

The course analysis form

The course analysis form consists of several parts, the first of which is *Course Design*. The teacher is asked to briefly describe the course design (learning activities, examination) and any changes that have been implemented since the last course offering. Thereafter, the teacher is asked to assess the *Students' Workload*. The aim here is to investigate if the student has spent the time expected (40 hours / 1.5 credits) and to give possible explanations for the deviations.

The next part of the course analysis form is the *Students' Results* in which the teacher is to elaborate on the students' success on the course and to discuss possible differences compared to previous course offerings.

The major part of the course analysis involves the students' *Learning Environment*. The teacher is asked to give the *overall impression* of the learning environment in the polar diagrams, for example in terms of the students' experience of meaningfulness, comprehensibility and manageability, and to give reasons for significant differences between different groups of students, if any. Thereafter, the teacher is asked to *analyze the learning environment* by identifying stronger and weaker aspects from the polar diagram or from the comments given by students to each statement.

To conclude the course analysis, the teacher is asked to summarize what emerges in the students' answers to the open questions, and to highlight good advice to future course participants that the teacher wants to pass on.

Finally, the teacher is asked to propose course development work that can be implemented on short or long term.

3.5 Taking part in a course analysis meeting

LEQ was developed to stimulate and facilitate exchange of experience between teachers. In particular, the LEQ process allows teachers – in a structured way and focusing on the students' learning – to work with fellow-teachers on course analysis and course development. This takes place principally in connection with course analysis meetings where teachers can discuss the results of their preliminary course analyses as above, under secure conditions. Even if the meeting is chaired by an educational developer or equivalent, the primary aim is for the participants in the meeting to find their own ways to develop their learning environments.

A course analysis meeting typically opens with each teacher giving a brief account of the conditions for his/her course. Then the courses are discussed on the basis of the participants' preliminary course analyses. Each teacher decides the type of information to share with the other participants. If you already have plans for concrete changes in a course at the next course offering, you can obtain feedback on these from the other participants. It may also be a question of getting new ideas on how a certain aspect of the learning environment could be improved in a concrete way. How do your colleagues deal with the aspects you want to improve? What experience do they have that you can learn from? What experience do you have that they can learn from?

The best way to prepare yourself for a course analysis meeting is to perform a preliminary course analysis that you take along to the meeting. You should also take along the LEQ report (the basic data for both can be downloaded in pdf from the course website). Even if you have identified aspects that you would mainly like to discuss at the meeting, you also need to be open to the wishes and needs of other participant. Everyone must be able to develop their teaching in their own way and at their own pace.

3.6 Developing your own competency

Often, it is not until you have a concrete idea for course development that you are able to identify a possible need to develop your own competency. By exchanging experiences with other teachers (both at the course analysis meetings and in other contexts), you can pick up new ideas for concrete course development as well as knowledge about your own need for competency development.

To support you in this process, there are several kinds of seminars, workshops and courses at KTH. More information and support is available on the teacher support website:

https://intra.kth.se/utbildning/lararstodswebben

4 Chairing a course analysis meeting

One to two weeks after the LEQ survey has been concluded and those responsible for the participating courses have received the results of the survey (the LEQ report), it is appropriate to hold a course analysis meeting where the participants are given opportunity to discuss their courses and learning environments. The main aim of the course analysis meeting is for the participants to pick up ideas on how to develop their courses. The meeting should stimulate an exchange of ideas and experience between the participants. A further aim is to elicit any needs for competency development and put forward suggestions for future activities in the teachers' group.

4.1 Organizing a course analysis meeting

The way in which a course analysis meeting is organized and carried out depends on the particular group of teachers. If the participants do not know each other well and are not very familiar with each other's courses, you as the chairperson should try to compensate for this so that everyone feels welcome to attend the meeting.

Aim at organizing the meeting in groups of three to five participants. With three participants, a meeting will take about two hours. With five participants, it will take about three hours. For the participants to get the most out of the meeting, you should try to organize meetings with participants who can benefit from each other's ideas and experience. This may be participants with similar courses but different organization, with the same or similar student groups, etc. Remember to word the invitation to the meeting in such a way that it is clear that participation is voluntary and that the aim of the meeting is clearly stated. You should also point out that the LEQ survey and the course analysis meeting is an excellent basis for the mandatory course analysis. Along with the invitation, you should send questions to the participants that they can work on as preparation for the meeting, if they are willing and have time. One suggestion is that they perform a preliminary course analysis and consider the following:

- What are the stronger and weaker aspects of the learning environment, respectively?
- What aspects would you like to develop? How should this be accomplished? How is this development expected to improve student learning?
- Do you need any support and/or competency development in order to implement the course development you would like to see?

4.2 Conducting a course analysis meeting

A main aim of the course analysis meeting is to act as a forum for exchange of ideas on, and experience of, course development and pedagogy. Consequently, the atmosphere at the meeting should be open, inclusive, and based on voluntary participation. The participants should not have the feeling that their courses are being exposed to scrutiny. The discussion may be inhibited if the participants have the impression that what is said will be recorded and reported. Therefore, you should not take notes during the meeting. Your role is to guide the discussion in order to support the exchange of ideas and experience.

A plan for the meeting that has proved to work well consists of the following six items:

(1) Open by explaining the aim of the meeting and pointing out that participation is voluntary. Also explain your role as chairperson.

(2) Continue by asking the participants around the table to present themselves and their courses. Particularly interesting aspects are year of study, number of participants, the homogeneity of the course participants, and course organization.

Then, using the preliminary course analysis and (if there is one) the student group's analysis, invite each participant round the table to present and reflect on:

(3) Stronger aspects of the learning environment in their courses and possible ways of developing these.

(4) Weaker aspects of the learning environment and possible ways of developing these.

(5) Is there a need for further support and/or competency development in order to implement the course development?

It is good if the participants' contributions give rise to spontaneous discussions with an exchange of ideas and experiences. Then, all you need to do is guide the discussion back if it moves away from the actual topic – learning environment, course development, and pedagogy. When discussing competency development, you can inform the meeting about the possibility of taking part in existing seminars, workshops and courses.

(6) Conclude by encouraging them to carry out the final course analysis.

Finally, you document the suggestions for teacher development that arise or that you yourself have identified as possible topics for seminars and workshops.

5 Student course analysis meeting, S-LEQ

5.1 Why arrange a student course analysis meeting?

The LEQ process is designed to encourage and facilitate collegial course analysis. In order to grant a more relaxed atmosphere and the possibility of having an open dialogue among teachers, there are no student representatives at the LEQ course-analysis meetings.

Students' input at the analysis stage is nevertheless still valuable both to teachers and to students as:

1. Students can offer a different interpretation of the survey result.
2. Students can benefit from the change of perspective they must take in order to interpret the survey result.
3. Students can help decoding answers that teachers do not understand or misinterpret.
4. The participation in the analysis of the survey result can motivate students to fill in the survey and can also help them understand how to *use* the survey more efficiently.
5. The fact that students will be able to access raw data will increase the reliability and transparence of the process.

5.2 What is a student course analysis meeting?

It is a student-only course analysis meeting (S-LEQ-meeting, in the following) that can be included in the LEQ-process as shown in Figure 3.

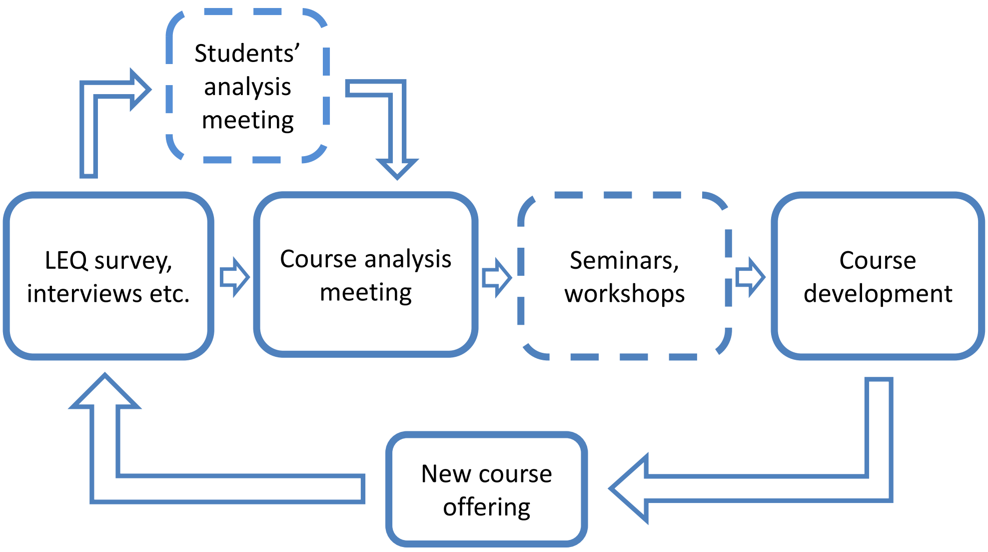


Figure 3: Student analysis meeting in the LEQ process.

In short, the student analysis meeting in the LEQ-process is thought to be an additional course analysis meeting. The outline of the S-LEQ meeting is as follows:

1. Students will interpret and discuss the survey data at the student meeting.
2. Students will report on their findings to the responsible teacher.
3. Teachers will make use of the students' analysis in their course-analysis meetings.

In order for point 3 to be possible, the S-LEQ-meeting should be scheduled as soon as possible after closing the LEQ-survey.

In Appendix 1, the reader will find more details about the S-LEQ-analysis meeting, in the form of instructions to the meeting chairperson. At this point, let us only provide the necessary ingredients and a short outline of a S-LEQ-meeting.

The necessary ingredients are:

- One student serving as the meeting chairperson
- A number of students interested in participating in the meeting that will receive the LEQ data for your course
- Instructions for the meeting for the chairperson and for the participants
- Place, date and time for the meeting

The outline of the S-LEQ-meeting is:

Before the meeting:

- Students will receive LEQ-data and instructions for their meeting

During the meeting:

- Students will discuss LEQ-data and will identify stronger and weaker aspects of the course. They will also list their priorities for course development.

After the meeting:

- Students will report to the responsible teacher on their findings

In the following section, some advice and help for putting an S-LEQ-meeting together are given.

5.3 How to arrange a S-LEQ meeting?

The following sections describe how one can organize a S-LEQ-meeting and also contain some material that will hopefully facilitate the organization (such as mail templates to send to the students that want to participate). This includes finding a chairperson and participants, and scheduling the S-LEQ-meeting.

Chairperson

In an ideal world, the chairperson of the S-LEQ-meeting for your course has not participated in your course, at least not in the course offering at hand. To find a suitable student who could lead the S-LEQ-meeting for your course, start by contacting the student(s) responsible for educational issues at your program:

THS:	utbildning@ths.kth.se
A:	pas@arkitektursektionen.se
B:	sno@b.kth.se, pas@b.kth.se
CL:	sno@cl-sektionen.se, pas@cl-sektionen.se
D:	sno@d.kth.se, pas@d.kth.se
Dr:	kassor@doktorandsektionen.se
E:	sno@e.kth.se
F:	f-ul@kth.se, pas@f.kth.se
Fria:	utbildning@ths.kth.se
I:	studier@iare.nu
IN:	sno@insektionen.se,
IsH:	styrelse@ishaninge.se
K:	snok@k.kth.se
M:	sno@m.kth.se, mpas@m.kth.se
Media:	sno@medieteknik.com, ledamot-lu@medieteknik.com
MiT:	sno-mit@sth.kth.se
Open:	pas@open.ths.kth.se
P:	sno@m.kth.se, ppas@m.kth.se
S:	sno@s.kth.se
T:	sno@t.kth.se
Telge:	pas@is-telge.nu
W:	sno@w-sektionen.se, pas@w-sektionen.se

They should be able to help you in getting in contact with a student who is willing to lead a S-LEQ-meeting.

If the student organization at your school/program cannot provide you with a S-LEQ-chairperson, you can try to find a student on your own. In Appendix 1, you will find a mail template containing instructions for the chairperson.

Participating students

There can be different strategies for selecting students for the S-LEQ-meeting. One could pick students according to some particular criterion in order to get qualified feedback on certain aspects of the course of particular interest. The other extreme is to invite all students attending the course to participate. The exercise of determining when one or the other strategy is most appropriate is a task that is left to the teacher to perform. Regarding the group size, a group of 6-8 students would be ideal, but any number of students greater than two could be acceptable. If you have many students interested in participating, it is relatively easy to divide them in smaller groups and run several meetings.

The chosen students will have access to the full survey data, it is therefore important to make them understand that the data they are receiving has to be treated as confidential and should by no means be distributed outside the group of students participating in the meeting.

A mail template that can be used to contact students in your course and to ask them to participate in a S-LEQ-meeting, can be found in Appendix 1.2.

Scheduling

Some final administration will be needed on your side in order to get the S-LEQ-meeting in place. Ask the S-LEQ-chairperson to try to schedule the meeting as early as possible so that there will be enough time for the students to give you the results of their analysis some time before your meeting with your colleagues.

Once the number of participants in the S-LEQ-meeting is known you can book a suitable room and maybe buy fika for everybody!

6 LEQ and evaluation of pedagogical skills

Pedagogical skills are often defined in the employment regulations at universities in general terms and can be specified as a demand for a given position. For teaching positions, KTH requires candidates to show high pedagogical skills and those must be proven through systematic documentation and analysis of own efforts in education.

Although higher education institutions differ somewhat in assessment criteria, it is widely accepted that showing pedagogical skills includes a well structured documentation and reflection over own educational or course development.

In simple terms, each implemented change should be documented and assessed. Answering following questions can indicate if the change has been implemented systematically:

- What has been done?
- How it has been done?
- Why it was done in this particular way?
- What are the results when it comes to student learning?

The LEQ process is a tool for evaluation and analysis of a course. It consists of a survey, and a course analysis meeting, followed by documentation of the process. The LEQ survey is based on factors that, according to research, promote learning in higher education. The survey also contains some open questions. The course analysis meeting encourages the teacher to share and discuss the outcome of the survey with colleagues. The documentation of the process is required for a systematic follow-up enabling quality assurance at the institution.

Even though the LEQ process itself does not show pedagogical skills, it is a good basis from which more profound and reasoned arguments can be brought. The LEQ process enables course development in systematic manner, based on what good learning really is. The template for course analysis helps the teachers to bring about reasoning that demonstrate teaching skills. Data is presented, and the analysis is structured, in a way that facilitates documentation of pedagogical skills.

LEQ statements and data presentation
In the LEQ survey, the students respond to statements regarding the learning environment of the course. Students submit their answers on a 7-grade Likert-scale and the result is presented in a polar diagram showing the average response to each statement.

LEQ is a tool designed to support course development. It is important to note that it is the students' results that determine the quality of learning. A weak result in one of the statements in the LEQ survey is not necessarily negative. A certain result on a statement can be a consequence of decisions made in the course design and in the course implementation. For example, in a basic course with a large number of students it may not be possible for the students explore the subject on their own to the same extent as in a project-based course on the advanced level.

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Appendix 1: Mail Templates

1.1: Instructions to the S-LEQ chairperson

```
Dear NAME_OF_STUDENT,

I would like to ask for your help in a matter that is of great
interest to me. I run the course COURSE CODE, COURSE NAME, for
which I would like to gather feedback from my students. On top
of filling in the LEQ I will ask some of my students to meet
and discuss the outcome of the LEQ. The meeting (called S-LEQ-
meeting) has to be led by a student that I can trust, and that
is why I am contacting you. I would be very grateful if you
would accept to serve as chairperson for the S-LEQ-meeting for
my course.

In the following you will find more detailed instructions for
the S-LEQ-meeting chairperson. Please, have a look at the
instruction and let me know if you are willing to accept this
commission.

YOUR_FAVOURITE_CLOSING_PHRASE,

YOUR_NAME
```

Here follows the instruction for the S-LEQ-meeting chairperson:

Overall duties
The chairperson of the S-LEQ-meeting has as its main duties:

1. to moderate and support the participants' discussion.

2. to make sure that all participants are given a chance to express their opinions

3. to report on the outcome of the discussion to the responsible teacher

Some of the main challenges will be to make sure that the participants base their opinions on the provided LEQ-data.

Another important aspect to keep in mind is to reassure students that their contribution will remain anonymous and undistorted in the report to the teacher(s).

Finally, it is important to stress that LEQ-data and the discussion during the S-LEQ-meeting should be treated, by all participants, as confidential.

It is advisable for the chairperson to take notes during the meeting.

S-LEQ-start
The chairperson will give a short introduction of the goal of the meeting: To help the course responsible teacher in the analysis of LEQ-results.

The chairperson will stress that it is therefore important to back-up one's opinions with the corresponding data from LEQ (as an example: A participant can express the opinion that the course PM should be re-written and say that this can be seen by the relatively low score on questions 7,8 and 13 and from some of the comments to those questions).

The chairperson will then re-assure all participants that the report to the teacher will preserve everyone's anonymity. At the same time, all participants will be required to treat all material (LEQ-result and any minutes from the meeting together with the opinions expressed by anyone) relative to the S-LEQ-meeting as confidential.

S-LEQ discussion
The chairperson will ask each of the participants to give a short (1-3 minutes) description of their experience of the course. If the number of participants exceeds 5 it can be wise to divide the group in sub-groups of 3 and run the exercise in parallel to keep this introductory part to under 10 minutes.

After the warm-up above, the chairperson can start the open discussion session, by introducing the following discussion points, one at a time:

Is there a good match between the expected workload and students' answer to question 0 of LEQ? If not, what seems to be the reason?

What are the strengths of the course based on the score in the polar diagram and on the comments? What seems to be the reason?

Which aspects of the course could be improved based on the score on polar diagram and on the comments? Why are these aspects more important than the rest? What results do you expect from these changes?

How could the course be developed?

What should remain unchanged in the next offering?

What should be changed in the next offering?

The chairperson should try to involve everybody in the discussion above, without forcing anyone to participate, of course.

S-LEQ final phase
The chairperson will summarize the discussion by listing the relevant points that seem to be of common interest to all participants. Even opinions for which there is not a unanimous agreement among participants should be mentioned, in this case all positions expressed on the issue should be accounted for.

The chairperson can at this point decide to try to write a first draft of the written report to be sent to the responsible teacher together with the participants, or to do it later on their own. If the chairperson opts for the latter, they should submit the report to all participants for approval before sending it to the responsible teacher.

The suggested format for the report to be sent to the responsible teacher is the following:

1. Strong aspects of the course
2. Aspects of the course that could be developed
3. Aspects of the course that should have high priority in the upcoming course development
4. Advice for future students

You can also supply the student-analysis meeting chairperson with the following instructions to send the participants for their preparations:

> Hej!
>
> Tack för du visar ditt engagemang för vår skola genom deltagandet i LEQ-kursanalysmöte om kursen KURSKOD KURSNAMN. Bifogad finns dina och dina kamraters svar till LEQ-enkäten för kursen. Svaren kommer att vara grunden för kursanalysmötet DATUM PLATS.
>
> Om du vill/har tid att förbereda dig inför mötet kan du:
>
> Förbereda en kort presentation av kursen med fokus på:
> - vilka var kursens förutsättningarna? (åk, antal studenter, obl./valbar ..)
> - vilka var kursens lärandemål?
> - vilka aktiviteter erbjöds för att träna på kursens lärandemål?
> - hur examinerades lärandemålen?
>
> Granska svaren till LEQ i förhållande till förutsättningarna för kursen.
> Du kan sedan reflektera över följande punkter:
> - Skiljer sig kursens polärdiagram från vad man kan förvänta sig i en kurs av denna karaktär?
> - Vilka är styrkor respektive utvecklingsområden för kursen?
> - Vilka områden (starka eller svaga) anser du bör utvecklas.
>
> Var noga med att grunda dina reflektioner på enkätsvaren och inte på dina egna upplevelser av kursen!
>
> Hello!
>
> Thank you for showing your commitment to our school through participation in the LEQ-course analysis meeting on the COURSE CODE, COURSE NAME. Attached is your and your colleagues' responses to LEQ survey of the course. The answers will be the basis for a course analysis meeting to be held on DATE at PLACE.
> If you want / have time to prepare for the meeting, you can:
> Prepare a brief presentation of the course with a focus on:

- Which were the course prerequisites? (Year, number of students, mandatory/eligible ..)
- Which were the learning outcomes?
- What activities were offered to train on the course's learning objectives?
- How were the learning objectives examined?

Consider the answers to LEQ in relation to the conditions of the course.
You can then reflect on the following points:

- Does the polar diagram differ from what one might expect in a course of this nature?
- What are the strengths and development areas for the course?
- What areas (strong or weak) do you think should be developed.

Be sure to base your reflections on the survey responses and not on your own experience of course!

1.2: Invitation to the students

Dear students of COURSE_NAME, COURSE_CODE,

I run the course COURSE CODE, COURSE NAME, for which I would like to gather feedback from my students. I would be very grateful if you would like to participate in a student-only course-analysis meeting about the course you have just attended. The meeting is 2h-long and will be moderated by STUDENT_MODERATOR_NAME. During the meeting you will, based on the outcomes of the course LEQ survey, discuss how the course possibly could be developed. Your conclusions will be reported to me by the meeting moderator and will be an important influence in the development of the course the upcoming years.

If you are interested in participating in the student-analysis meeting, please contact STUDENT_MODERATOR_NAME, STUDENT_MODERATOR_EMAIL, no later than DEADLINE_DATE.
You will receive your class' answers to the LEQ survey for the course and will obtain more information about the student-analysis meeting when you have signed up for participation. The workload expected from you is of about 3h (1h preparation + 2h meeting).

I really hope you will find the time to give me your precious feedback.

YOUR_FAVOURITE_CLOSING_PHRASE,

YOUR_NAME