



Welcome to this Aurora seminar on learning outcomes beyond subject-related knowledge and skills.

In this seminar, we will talk about

1. The importance of general academic and personal competences as the result of university education, in addition to subject-related knowledge and skills
2. Tools developed in the Aurora Competence Framework to help academic teachers to clarify and strengthen the way they integrate learning outcomes for general academic and personal competences in their regular teaching
3. How using those tools is not strenuous extra work, but a rewarding manner to increase learning without increasing the teaching load.

Prologue: Aurora Education

- Education that equips students
 - with the skills and mindsets
 - to take initiative and responsibility
 - to tackle societal challenges

- Aurora is matching
 - academic excellence
 - with societal relevance

A good starting point is the Education Vision of the Aurora European University alliance programme.

Aurora universities aim for education

- that equips students with the skills and mind-sets
 - which make them willing and able to take initiative and responsibility
 - to tackle societal challenges

“Taking initiative and responsibility” is a more generic way to express the Aurora focus on social entrepreneurship & innovation in the Aurora European University programme.

This Aurora Education Vision fits the overall Aurora vision to match academic excellence with societal relevance.

Seminar moderator

Kees Kouwenaar

- Former Secretary-General of Aurora
- Specialist in the Aurora Competence Framework at *Vrije Universiteit Amsterdam*
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A few words about myself as the moderator of this seminar.

I have worked in international education since 1982.

I worked in recognition of diplomas and credential evaluation and was intimately involved in the creation of the Lisbon Recognition Convention.

Since 2008, I have worked at the *Vrije Universiteit Amsterdam*. Since 2013, I run a programme called MasterMind Europe which designed a new method for “Master’s admission for a diverse international classroom”.

Since 2015, I have been involved in the foundation of Aurora as a group of universities and have served as secretary general until my formal retirement in July 2021.

In this role, I led the Aurora team in the successful application for an ERASMUS+ grant as one of the now 41 European University Alliances.

Since my retirement, my role is limited to the “LOUIS” tool as part of the Aurora Competence Framework. In this capacity I give workshops and seminars on learning outcomes beyond subject-related knowledge and skills. I provide advice and counselling to academic teachers who want to strengthen general academic and personal learning outcomes. I coordinate the work of the Aurora Expert & Support Centre for LOUIS: the group of key LOUIS users and advocates in the Aurora universities – who often also have a local LOUIS team.

In on-site seminars, I am often accompanied by an academic from the university that hosts the seminar: someone who has already had prior experience with the use of LOUIS in adapting courses or programmes to integrate general academic and personal competences with subject knowledge in the curriculum and the learning

outcomes.

Seminar programme

- I. Aurora Vision for Education
- II. Learning outcomes in non-subject related competences
- III. Tasting and testing the LOUIS competences
- Wrap-up

This seminar consists of three parts:

1. A further explanation of the Aurora Education Vision and how this leads, in addition to subject specific competences, to a focus on more general academic and personal competence development in university education.
2. An introduction of the Aurora Teaching & Learning Development tool called LOUIS: Learning Outcomes in University for Impact in Society. LOUIS uses the VALUE approach as developed by the American Association of Colleges and Universities (AAC&U).
3. Specific suggestions on how academic teachers – individually or in small peer groups – can clarify and strengthen their role in developing learning outcomes for generic competences in their regular teaching:
 - Suggested questions for discussion
 - Suggested exercises to apply the tool in their interactions with students.

The seminar will end with some final observations and suggestions on how the tool might be used most effectively and how Aurora can help with this.

I Aurora Education Vision

- Education that equips students
 - With the skills and mindset
 - To take responsibility and initiative
 - To tackle societal challenges
- To this end: **AURORA** Competence Framework



With this slide, the first part of the Aurora seminar on learning outcomes beyond subject expertise starts: the part on the Aurora Education vision.

Aurora universities aim for education

- that equips students with the skills and mind-sets
 - which make them willing and able to take initiative and responsibility
 - to tackle societal challenges

“Taking initiative and responsibility” is a more generic way to express the Aurora focus on social entrepreneurship & innovation in the Aurora European University programme. At this point in the seminar, participants are asked for their views regarding non subject skills and mindsets.

In the live seminar, this is an interactive discussion. Viewers of the recorded session are invited to reflect on these questions and possibly discuss them with their colleagues.

Which competences beyond subject specific knowledge and skills would you name as important?

Participants are invited to just name relevant competences; arguments and considerations may follow later.

Follow-up questions are raised for consideration during and after the seminar; time does not allow to discuss these in the group.

How can these competence be integrated in your teaching – what are challenges?

How can these be explained to students – or colleagues?

The Aurora Competence Framework (ACF) is the key tool to help academic teachers to put the Aurora education in practice.

The ACF can also help to create a common language to discuss non-subject related learning outcomes across disciplines and universities. This is useful because often academics, universities and other organisations create their own vocabulary and definitions of key non-subject competences. This inhibits peer exchange and peer learning.

The Aurora education vision is part of the overall Aurora vision:

- Matching academic excellence with societal relevance
- Learning with and from each other on a high-trust platform where we can show our struggles and weaknesses.

I Aurora Education Vision

- Four categories of learning outcomes
 - Subject-specific competence and expertise (your natural habitat)
 - General academic competences
 - Personal and interpersonal competences
 - Linguistic competences
- Social entrepreneurship and innovation

The Aurora Education Vision requires students to develop not only subject expertise, but also more general skills and mind-sets. It calls for attention for different kinds of competences.

NB Academics are inclined to see these general competences directly in function of their own subject. But graduates are very likely to end up outside that field of specialization. So it is valuable if students understand that these general competences are not only useful within the specific subject, but also more generally and outside.

There are many different ways to categorise competences that exist in the world of work and the world of education.

In the Aurora Education Vision, we use these four categories as they seem specifically relevant and useful for university education.

1. Subject specific competence and expertise (usually the core expertise of academic teachers)
2. General academic competences
3. Personal and interpersonal competences
4. Linguistic competences

Please note, that the borderline between general academic and personal competences is not sharp, but rather fluid. Yet the rough distinction is still useful, as there is a clear difference on the far end between „inquiry and analysis“ as a typical general academic competence and „teamwork“ as a typical (inter)personal competence.

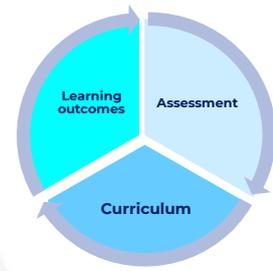
Similarly, there is not a sharp, but rather a fluid distinction between general academic and personal competences on the one hand and linguistic competences on the other.

Still, this broad categorization is useful as it helps academic teachers to achieve the Aurora education mission of skills and mindsets beyond subject expertise.

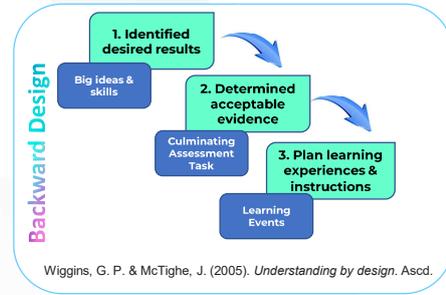
A second thing to note is that within the personal and interpersonal domain, there is an important distinction between personal competences on the one hand and personal characteristics or personality traits on the other hand. Personality is formed in early life and is not very malleable anymore at university. Competences are still much more open to development. Still, the personality traits should not be ignored: Students can learn to become more aware of their personality traits and how they impact what they do.

A last note: Aurora has a specific focus on social entrepreneurship & innovation (SE&I), which is why this is listed as a separate category here. SE&I may seem rather specific and less intuitive for many academic teachers. Therefore, as an alternative to SE&I, we also use the broader description of „taking responsibility and taking initiative“, which still captures the same essence.

I Aurora Education Vision



- With integrated approach of Learning Outcomes ↔ Curriculum ↔ Assessment
- Or backward design
- SCIL: Subject – Competence Integrated Learning



In the Aurora Education Vision, we see Learning outcomes, the Curriculum of Teaching & Learning activities and the Assessment of students' achievements as an integrated whole. Education requires an approach that integrates those three elements.

Let me repeat the well-know definition of Learning Outcomes:

Learning outcomes are statements of what students know, understand or are able to do at the end of a learning process.

To be effective, learning outcomes must make sense to teachers and students. Learning outcomes need to be specific in terms of what it is that students need to be good at and in terms of how good they need to be in it.

One special and interesting way to integrate Learning Outcomes, the Curriculum and Assessment is **backward design**:

1. It starts from Learning Outcomes as the crucial part.
2. Then – even before thinking about lectures – it moves to Assignments: these assignments need to be designed in such a way that they
 - train students to develop the desired competences and
 - demonstrate it when students actually achieve these Learning Outcomes.
3. Only then, the curriculum designer should identify what need there is for Instruction/guidance (to make the assignments work).

In this context, we can also point to the constructive alignment perspective developed by John Biggs and others. According to Biggs „what the student does is actually more important than what the teacher does“; also, he stresses that intended learning outcomes must be defined not only by what is to be learned, but also how (by what methods or activities) and to what level.

Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher education*, 32(3), 347-364.

In the Aurora Education Vision, development of general academic and personal competences is not seen as distinct from development of subject-related knowledge and skills. We don't propose to have separate lectures, study assignments and assessment

tests for general competences. On the contrary. In university education, development of subject expertise and general competences must (and do) go hand in hand.

Some participants may have heard of the concept of “Content-Language Integrated Learning” or CLIL. There the idea is to let language learning go hand in hand with subject knowledge development. In analogy to the CLIL concept, we could use the term Subject-Competence Integrated Learning or “SCIL”.

With this Vision, we seek to clarify general competences as part of the regular subject-focused curriculum. With more explicit, more transparent, more intuitive learning outcomes for general academic and personal competences, it becomes easier to integrate them in the regular teaching and learning process. We explain better what students need to be good at. If we better articulate specific levels of competence, we explain better how good students need to be at it. We explain better to students what is expected of them.

I Aurora Education Vision

AURORA Competence Framework

- Goal: toolkit & common language
- Elements: LOUIS (Learning Outcomes in University for Impact in Society)
 SEISMIC (Social Entrepreneurship & Innovation Scales: Measuring Increase in Competence) *not today*
 BEVI (Beliefs, Events, and Values Inventory) *not today*
more to come...

Now we move to the role of the Aurora Competence Framework to implement the Aurora Education Vision.

The Aurora Competence Framework is a composite: it consists of various elements.

For now, we see three tools, but more may follow.

1. LOUIS: Learning Outcomes in University for Impact in Society. LOUIS is a teaching & learning development tool for general academic and (intra)personal competences. LOUIS uses the existing AAC&U VALUE approach and adapts it for Aurora.
2. SEISMIC: Social Entrepreneurship & Innovation Scales: Measuring Increase in Competence. SEISMIC is an Aurora-made measuring tool for competences needed for social entrepreneurship & innovation; this is not the topic of this seminar.
3. BEVI: the Beliefs, Events, Values Inventory. The BEVI is an existing instrument used in the Aurora context; again, not the topic of this seminar.

This seminar focuses on LOUIS: the teaching & learning development tool to articulate learning outcomes for general academic and personal competences.

Other seminars and presentations will become available on the other tools in the Aurora Competence Framework.

The various tools in the Aurora Competence Framework complement each other – each has distinct target groups and specific objectives.

There are many other frameworks of competences – the number is growing. The Aurora Competence Framework and its components not at odds with these other frameworks, but are rather aligned with them.

Examples of such other frameworks are the 8 SDG education competences formulated by UNESCO, the EntreComp framework and two frameworks initiated by the Council of Europe: the common European Framework of Reference for Languages and the recent Competence Framework for Democracy. The European Commission has developed Competence Frameworks for “innovative policymaking”, for “science for policy” for researchers.

Within the ACF, LOUIS can be seen as a general framework that is not geared to one specific normative objective (like entrepreneurship, sustainability or democracy) but can be used for any of these objectives.

I Aurora Education Vision

- Equip to meet societal challenges
- Four categories of learning outcomes
- Explicit and transparent learning outcomes
 - for general academic and personal competences
 - integrated with the subject-related development of expertise
- **AURORA Competence Framework**
A toolbox with different tools for different situations

In this slide, we summarise the 1st part of the seminar on Learning Outcomes beyond subject expertise; the part that focuses on the Aurora Education vision.

- Aurora education aims to equip students to meet societal challenges.
- We use a rough distinction of subject, general academic, personal and linguistic competences: these are partly overlapping, but useful categories to articulate learning outcomes and integrate these in the teaching & learning process.
- Clear and assessable learning outcomes are at the core of a transparent and effective curriculum; they are crucial to explain to students what is expected of them.
- Learning outcomes for general academic and personal competences are at the heart of university education – integrated with subject related teaching and learning.
- The Aurora Competence Framework offer diverse tools to help academic teachers to articulate such learning outcomes, integrate them in their regular classes and assess the actual development of these competences.

In the next part of this seminar - part II - we will elaborate on the Learning Outcomes beyond subject expertise and examine the LOUIS approach as a useful tool to achieve the Aurora Education Vision.

II Learning Outcomes in University for Impact in Society

Open floor: your views

- Which competences beyond subject expertise do you see as relevant/important?
 - How easy or difficult is it to incorporate them in your teaching?
 - (How) Do you explain them to your students - and to your colleagues?
- **VALUE Rubrics:** www.aacu.org/value-rubrics
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This is the start of the second part of the Aurora seminar on learning outcomes beyond subject expertise.

This part focuses on the Aurora Teaching & Learning Development tool called LOUIS: Learning Outcomes in University for Impact in Society.

LOUIS uses the VALUE approach as developed by the American Association of Colleges and Universities (AACU).

NB VALUE is an acronym: Valid Assessment of Learning in Undergraduate Education. It is not about values, but about learning outcomes beyond subject expertise.

In the introduction to the seminar, three questions were addressed – to be discussed in the live seminar and - for viewers of the recording - to reflect on and discuss with colleagues.

In the first part of the seminar, we looked at the overall Education Vision of Aurora and what this means for competences beyond subject expertise and how such competences can be made to work in university.

In this second part of the seminar, we return to the questions from the introduction and to the answers that were given. We propose to compare these answers with the 16 LOUIS competences. And we will look at them also at the level of specific Learning Outcomes for these competences.

Participants in live sessions, but also viewers of the recorded session are invited to note or recall their remarks on the three questions on the slide:

- Which competences? Examples?
- How easy or difficult? Which competence is easy – why? What makes teaching soft skills difficult and how could this be made easier?
- Do you talk about these non subject learning outcomes with your students – or colleagues? How does that go in practice?

Viewers of the recording are invited to respond also by email to kees.kouwenaar@vu.nl.

II Learning Outcomes in University for Impact in Society

Competences: how specific or broad are they?

*Example:
Problem solving*

Problem solving is the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal

The next few slides will go a little deeper into the non-subject related competences. Competences beyond subject expertise often have fairly broad definitions. Look at the example for „problem solving“:

Problem solving is the process of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal.

It may (and often does) evoke the following response from academic teachers: „Yes, important, nice, not untrue – but what can I do with this in my class?“

The LOUIS approach also gives such broad definitions for the competences which it identifies.

In fact, this definition for Problem solving Stems from the LOUIS approach.

But we can go beyond this definition and the LOUIS approach helps us to do that.

II

Problem solving involves i.e.: Evaluating the outcomes

Compare two students' performances

One student reviews the results only superficially in terms of the defined problem, with no consideration of the need for further work

Another student reviews the results relative to the defined problem, with thorough and specific considerations of the need for further work

Can you relate this to your teaching and your assessment of student's work?

Note that this slide focuses on one specific aspect of „problem solving“ namely „evaluating outcomes“: does the solution actually work?

There are two messages here.

The **first** message is, that we can deconstruct ‘Problem Solving’ as a competence into more tangible dimensions; ‘Evaluating Outcomes’ is one such dimension.

The ability to evaluate outcomes is a crucial part of solving problems.

Actually, in the VALUE approach, Problem Solving consists of six distinct dimensions:

1. Define problem
2. Identify potential strategies – or general approaches
3. Propose solutions / hypotheses – or specific approaches
4. Evaluate potential solutions – choose a good one
5. Implement solutions – actually do it
6. Evaluate outcomes – see if it worked.

The slide shows two highly different examples of students’ performance in this one dimension of “Evaluating Outcomes” as part of the competence “Problem Solving”.

The **second** message is that, at the level of these dimensions, we can articulate distinct levels of performance. This allows us to demonstrate progress:

Progress not just in terms of additional skills on top of skills earlier acquired.

But also in terms of decreasing errors and weaknesses and in terms of increasing complexity and sophistication when applying the same skill.

These two messages constitute the core of the LOUIS approach as part of the Aurora Competence Framework:

- It can be helpful to tear down broad competences into specific dimensions.
- And it can be helpful to articulate distinct levels of performance in these dimensions.

In fact, by identifying specific dimensions and levels of performance, we convert broad competences into specific Learning Outcomes.

II Learning Outcomes in University for Impact in Society

- 16 Competences
 - Each deconstructed into 5 or 6 components/dimensions
 - For each dimension: 4 progressive performance descriptors
 - (Recently in development: ASS Assessment Design and Diagnosis tool)

The information presented on “Problem Solving” was derived from the VALUE rubric “Problem Solving”.

The definition as a broad competence, the deconstruction in to 6 dimensions, including “evaluating outcomes” as one dimension, and the four „progressive performance descriptors“ of which the slide showed the two extremes: these are all derived from the VALUE approach.

LOUIS, the Teaching & Learning development tool of the Aurora Competence Framework, uses the 16 broad competences of the VALUE approach. Each of the 16 competences has 5 or 6 dimensions and each dimension has four distinct progressive descriptors of performance.

It is **absolutely not** the purpose of the Aurora Competence Framework to suggest that academic teachers should incorporate all 16 competences and all 81 dimensions into their teaching.

The message is rather that choosing **just a few** – those that are most obvious to you as an academics to be useful for your teaching – is an excellent step towards the Aurora Education Vision: the vision that says that we must of equip our students with not just the subject expertise, but also the broader skills and mindsets to contribute to society.

The next slides will provide more information on the VALUE competences and how they

are used in LOUIS.

16 LOUIS competences

<u>Civic engagement</u>	<u>Creative thinking</u>	<u>Critical thinking</u>	<u>Ethical reasoning</u>
<u>Global learning</u>	<u>Information literacy</u>	<u>Inquiry and analysis</u>	<u>Integrative learning</u>
<u>Intercultural knowledge & competence</u>	<u>Foundations for life-long learning</u>	<u>Oral communication</u>	<u>Problem solving</u>
<u>Quantitative literacy</u>	<u>Reading</u>	<u>Teamwork</u>	<u>Written communication</u>

This slide shows all 16 competences in one overview.

Civic engagement: <ul style="list-style-type: none"> Diversity of communities & cultures Analysis of knowledge Civic identity & commitment Civic Communication Civic action & Reflection Civic contexts / structures 	Creative thinking: <ul style="list-style-type: none"> Acquiring competencies Taking Risks Solving Problems Embracing Contradictions Innovative Thinking Connecting, Synthesizing, Transforming 	Critical thinking: <ul style="list-style-type: none"> Explanation of issues Evidence Influence of context and assumptions Student's position (perspective, thesis/hypothesis) Conclusions and related outcomes 	Ethical reasoning: <ul style="list-style-type: none"> Ethical self-awareness Understanding different ethical perspectives / concepts Ethical issue recognition Application of ethical perspectives / concepts Evaluation of different ethical perspectives / concepts
Global learning: <ul style="list-style-type: none"> Global self-awareness Perspective taking Cultural diversity Personal and social responsibility Understanding global issues Applying knowledge to contemporary global contexts 	Information literacy: <ul style="list-style-type: none"> Determine the extent of information needed Access the needed information Evaluate information and its sources critically Use information effectively to accomplish a specific purpose Access and use information ethically and legally 	Inquiry and analysis: <ul style="list-style-type: none"> Topic selection Existing knowledge, research and/or views Design process Analysis Conclusions Limitations and implications 	Integrative learning: <ul style="list-style-type: none"> Connections to experience Connections to discipline Transfer Integrated communication Reflection and self-assessment
Intercultural knowledge and competence: <ul style="list-style-type: none"> Knowledge: cultural self-awareness Knowledge of cultural worldview frameworks Skills: empathy Skills: Verbal and non-verbal communication Attitudes: 1 curiosity & 2 openness 	Foundations for life-long learning: <ul style="list-style-type: none"> Curiosity Initiative Independence Transfer Reflection 	Oral communication: <ul style="list-style-type: none"> Curiosity Language Delivery Supporting material Central message 	Problem solving: <ul style="list-style-type: none"> Define problem Identify strategies Propose solutions / hypotheses Evaluate potential solutions Implement solution Evaluate outcomes
Quantitative literacy: <ul style="list-style-type: none"> Interpretation Representation Calculation Application / analysis Assumptions Communication 	Reading: <ul style="list-style-type: none"> Comprehension Genres Relationship to text Analysis Interpretation Reader's voice 	Teamwork: <ul style="list-style-type: none"> Contributes to team meetings Facilitates contributions of team members Individual contributions outside of team meetings Fosters constructive team climate Responds to conflict 	Written communication: <ul style="list-style-type: none"> Context and purpose of writing Content development Genre and disciplinary conventions Sources and evidence Control of syntax and mechanics

This slide shows all 16 competences, each deconstructed into its 5 or 6 more tangible dimensions.

In the LOUIS tool, you can jump through the 16 competences, their 5 or 6 dimensions and each of their performance descriptors.

You will get information where and how to get them in a minutes.

In my experience, quite a few of these 16 competences only 'come to life' if you take the time to read through the descriptions of the dimensions and also of the level descriptors attentively. Reading a descriptor in comparison to its 'next higher' and 'next lower' counterpart greatly adds to the understanding of each descriptor and its relevance in academic teaching.

So my advice is not to simply choose your preferred competences on the face value of the title or the dimensions listed. For those competences that appeal to you – and maybe for those that trigger your curiosity – take the a few minutes to read through the full rubric. That will help you to pinpoint those few descriptors that really express best what is important for you in your course / module.

II Learning Outcomes in University for Impact in Society

- VALUE Rubrics: Developed by  Association of American Colleges & Universities
A VOICE AND A FORCE FOR LIBERAL EDUCATION
 - NB Value ≠ „value“: Valid Assessment of Learning in Undergraduate Education
- 10 Intellectual & Practical Skills } (~ general academic)
- 5 Personal & Social Responsibility } (~ (inter)personal)
- 1 Integrative & Applied Learning }

Here is some information on these 16 competences and their origin.

The VALUE rubrics were developed by the American Association of Colleges & Universities, working with large groups of academics from a broad range of universities and colleges. The rubrics were first released in 2009. Since then, they have been used by over 70 000 academics from almost 6 000 institutions of Higher Education.

Let me repeat that the word VALUE does not imply that the rubrics focus on students' development of values in university. The acronym signifies Valid Assessment of Learning in Undergraduate Education.

The full VALUE Rubrics are available in digital form at the AACU VALUE website (in small print).

Within Aurora, as part of LOUIS, we made an effort to make the information more accessible and more readable.

The overview of the 16 competences in one hyperlinked document – so you can jump through competences, dimensions and descriptors – is available for participants at the website of the University of Innsbruck:

https://www.uibk.ac.at/media/filer_public/10/2a/102a5dc5-219d-40b0-be15-2baf140a84c5/louis_deutsch_endversion_ohne_layout_24102022.pdf.

One important difference between the design and use of the VALUE rubrics and LOUIS is

the focus on 'assessment' or on 'learning outcomes'. VALUE was developed to enhance valid assessment of learning. The key focus of LOUIS is to provide a tool for the articulation of clear and useful learning outcomes beyond subject expertise.

Aurora is in good contact with AAC&U. AAC&U is happy with Aurora's use of the VALUE approach as long as we acknowledge AAC&U as the source and do not turn LOUIS into a money-making venture.

Until further notice, the Aurora versions are for the use of the seminar participants only and not for public distribution. If participants meet interested colleagues, they are kindly asked to contact their institutional Aurora coordinator.

Eventually, the material will be available on the Aurora website.

CRITICAL THINKING VALUE RUBRIC		 <small>Association of American Colleges and Universities</small>		
<i>for more information, please contact value@aacu.org</i>				
	4 Capstone	3 Milestone	2 Milestone	1 Benchmark
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence <i>Selecting and using information to investigate a point of view or conclusion</i>	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

This slide shows one VALUE Rubric in the original AACU lay-out – in fairly small print.

The full set of VALUE competences in their original lay-out is also available at the Innsbruck webpage.

In this original AACU document, the progression in performance goes from right to left, which seems counter-intuitive in a European context. So, this has been reversed for LOUIS.

And we use the colour coding of the overview of the 16 competences for the separate PowerPoints.

In the next slides, two examples of the VALUE Competences will now be treated in some detail:

Critical thinking and Teamwork.

Critical thinking definition:

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion

Deconstructing the broad competence into dimensions

Critical thinking dimensions:

- Explanation of issues
- Evidence
- Influence of context and assumptions
- Student's position (perspective, thesis / hypothesis)
- Conclusions and related outcomes (implications and consequences)

Formulating progressive performance descriptors for each dimension

This slide gives detailed information on the competence Critical Thinking

As mentioned, the merit of the VALUE approach is in two important aspects:

The first merit is in the deconstruction from a broad definition of a broad competence into distinct dimensions that come closer to the practical classroom situation of an academic teacher.

For critical thinking, these dimensions are:

1. Explanation of issues
2. Evidence
3. Influence of context and assumptions
4. Student's position (perspective, thesis / hypothesis)
5. Conclusions and related outcomes (implications and consequences)

You see that these dimensions are more tangible, more operational than the broad definition.

Keen observers may see some overlap between the dimensions of this Critical Thinking competence and the dimensions shown before for Problem Solving.

There is indeed overlap between some of the Competences. This is all the more reason to choose just a limited number of competences and their most relevant dimensions: the elements that resonate most with you as an academic teacher for the courses / modules which you are teaching.

Formulating progressive performance descriptors for each dimension

Critical thinking: Explanation of issues

Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.

Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.

Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.

Issue/problem to be considered critically is stated without clarification or description.

The second merit is in the articulation of distinct levels of performance, or ability in these dimensions of a broad competence.

This slide shows distinct levels of competence in the first dimension of Critical thinking: 'explanation of an issue'.

The slide shows how students may grow in decrease of errors and weaknesses and/or in increase in the complexity and sophistication in their ability to explain an issue for which critical thinking is required.

Participants are invited to read the descriptors.

Formulating progressive performance descriptors for each dimension

Critical thinking: Explanation of issues

Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.

Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.

Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.

Issue/problem to be considered critically is stated without clarification or description.

The same for the second dimension of Critical thinking.

Formulating progressive performance descriptors for each dimension

Critical thinking: Evidence



Information is taken from source(s) with enough interpretation/ evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.



Information is taken from source(s) with enough interpretation/ evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.



Information is taken from source(s) with some interpretation/ evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.

Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.

And the third

Formulating progressive performance descriptors for each dimension

Critical thinking: Influence of context & assumptions



Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.



Identifies own and others' assumptions and several relevant contexts when presenting a position.



Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).

Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.

And dimension nº four.

Formulating progressive performance descriptors for each dimension

Conclusions and related outcomes (implications and consequences)



Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.



Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.



Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.

Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

And the last, 5th dimension of Critical Thinking

Teamwork definition:

Teamwork is behaviors under the control of individual team members (effort they put into team tasks, their manner of interacting with others on team, and the quantity and quality of contributions they make to team discussions).

Deconstructing the broad competence into dimensions

Teamwork dimensions:

- Contributes to team meetings
- Facilitates the contributions of team members
- Individual contributions outside team meetings
- Fosters constructive team climate
- Responds to conflicts

Formulating progressive performance descriptors for each dimension

With this slide, we start the second example used in this seminar: Teamwork (interpersonal).

The slide shows the definition:

Teamwork is behaviours under the control of individual team members (effort they put into team tasks, their manner of interacting with others on team, and the quantity and quality of contributions they make to team discussions).

Teamwork can be seen to consist of the following dimensions:

- Contributes to team meetings
- Facilitates the contributions of team members
- Individual contributions outside team meetings
- Fosters constructive team climate
- Responds to conflicts

You see that these dimensions are more tangible, more operational than the broad definition.

Formulating progressive performance descriptors for each dimension

Contributes to team meetings

Helps the team move forward by articulating the merits of alternative ideas or proposals.



Offers alternative solutions or courses of action that build on the ideas of others.



Offers new suggestions to advance the work of the group.



Shares ideas but does not advance the work of the group.

Formulating progressive performance descriptors for each dimension

Facilitates the contribution of team members



Engages team members in ways that facilitate contributions to meetings by both constructively building upon or synthesizing the contributions of others as well as noticing when someone is not participating and inviting them to engage.



Engages team members in ways that facilitate their contributions to meetings by constructively building upon or synthesizing the contributions of others.



Engages team members in ways that facilitate their contributions to meetings by restating the views of other team members and/or asking questions for clarification.

Engages team members by taking turns and listening to others without interrupting.

Formulating progressive performance descriptors for each dimension

Individual contributions outside team meetings



Completes all assigned tasks by deadline; work accomplished is thorough, comprehensive, and advances the project. Proactively helps other team members complete their assigned tasks to a similar level of excellence.



Completes all assigned tasks by deadline; work accomplished is thorough, comprehensive, and advances the project.



Completes all assigned tasks by deadline; work accomplished advances the project.

Completes all assigned tasks by deadline.

Formulating progressive performance descriptors for each dimension

Fosters constructive team climate

→ All of the following: (1) Treats team members respectfully (polite, constructive), or (2) With positive tone and body language, or (3) By expressing confidence, or (4) By providing assistance

→ Three of the following (see below and above)

→ Two of the following (see below and above).

→ One off the following: (1) Treats team members respectfully (polite, constructive), or (2) With positive tone and body language, or (3) By expressing confidence, or (4) By providing assistance.

Formulating progressive performance descriptors for each dimension

Responds to conflicts

→ Addresses destructive conflict directly and constructively, helping to manage/resolve it in a way that strengthens overall team cohesiveness and future effectiveness.

→ Identifies and acknowledges conflict and stays engaged with it.

→ Redirecting focus toward common ground, toward task at hand (away from conflict).

→ Passively accepts alternate viewpoints/ideas/opinions.

II Learning Outcomes in University for Impact in Society

- **Group discussion 15 minutes: LINK**
 - Impression of LOUIS approach
 - Most relevant competences
 - Most relevant competences/dimensions
Maximum of 6 of those (*in der Beschränkung...*)
 - Observation in plenary

We end this part II of the seminar by a short group discussion in small groups of 2 or 3 participants.

Participants are invited to use their laptops to access the 16 VALUE competence rubrics at the Innsbruck website: <https://bit.ly/3EMKGjF>.

In the live seminar, the moderators circulate and are available to respond to questions. Groups may consist of colleagues in similar fields – or from entirely different fields.

The groups are asked to discuss:

- Their overall impression of the 16 VALUE competences with their dimensions and performance descriptors
- Which competences seem most relevant for the course they teach (no consensus is required!)
- Within the most relevant competence, which dimensions are the most relevant.

The groups are invited to select no more than **6 dimensions** in total.

Experience shows that academic teachers may be tempted to choose more. You may find an opportunity to do so at a later stage, but for the context of the seminar, limitation to no more than 6 dimensions is important.

Participants who view the recorded session are invited to do the same, individually or with a colleague: choose the (max 3) VALUE competences that seem most relevant to

your teaching and within those, choose the (max 6) dimensions that again seem most relevant. Viewers of the recording are invited to respond also by email to me at kees.kouwenaar@vu.nl.

After 15 minutes of the group discussions have passed, a plenary exchange of observations follows.

II Learning Outcomes in University for Impact in Society

- 1 Participants views
- 2 Broad definitions – dimensions – descriptors
- 3 LOUIS Rubrics
- 4 Two examples: Critical Thinking & Teamwork
- 5 Group discussions

With this slide, we come to the end of part II of the Aurora seminar on Learning Outcomes in University for Impact in Society.

In this part II, we elaborated on the Learning Outcomes beyond subject expertise and examined the VALUE approach as a useful tool to achieve the Aurora Education Vision.

1. We collected input from the participants on how they value general academic and personal competences in their teaching and how they work with them in class.
2. We looked at the often broad definitions of such competences
3. We discussed how such broad competences can be made more useful by
 - a) Deconstructing them into more tangible dimensions and by
 - b) Articulating progressive performance descriptors for specific dimensions, which show
 - c) Decreasing students' weaknesses and increasing complexity and sophistication in applying the same task
4. We looked at the 16 LOUIS competences which uses the VALUE approach developed by AACU.
These LOUIS competence rubrics which have these three strengths of 1) deconstruction, 2) articulation of descriptors which 3) show levels of decreasing weakness and increasing sophistication.
5. We looked in detail at two of these rubrics: for Critical Thinking and for Teamwork
6. We engaged in group discussions to identify competences and dimensions with

most relevance for individual academic teachers.

Part III of the seminar offers specific suggestions on how academic teachers – individually or in small peer groups – can clarify and strengthen their role in developing learning outcomes for generic competences in their regular teaching.

III LOUIS – your course

- Group discussion 20 minutes: [LINK](#)
 - Your course ~ LOUIS
 - Observation in plenary

With this slide, we start Part III of the Aurora seminar on learning outcomes beyond subject expertise.

Part III offers specific suggestions on how academic teachers – individually or in small peer groups – can clarify and strengthen their role in developing learning outcomes for generic competences in their regular teaching. It contains:

- Suggested questions for discussion
- Suggested exercises to apply the tool in their interactions with students.

For live participants, it has a group activity. In small groups of 2 and 3, participants are invited to confront and compare the VALUE approach with courses actually taught by participants.

Participants have been asked to bring written information on the purpose and learning outcomes of their courses to the seminar. We will use this written information. In addition, we can use information that may be provided by the academics during the group activity: Information that is not written down and is not normally available to students.

In the live session the moderators mingle and respond to questions.

Viewers of the recorded version may emulate the suggested group activity – by

themselves or with colleagues.

III LOUIS – your course

- **Group discussion 20 minutes: LINK**
 - Which LOUIS competence(s) fits your course
 - Which dimension(s) fit your course
 - Which descriptor should be reached:
 - At the end (minimally)
 - At the end (ideally)
 - At the beginning
 - Observation in plenary

Within the group, participants are invited to select one participant's own course. For that course:

1. See what the course description says about non subject-specific learning outcomes and compare that with the VALUE competences: identify the LOUIS competences that fit this course description best
NB if the course description is not clear (enough) about non-subject specific learning outcomes, identify the VALUE competences that could help to make the implicit non-subject aims more explicit.
NB Experience shows that often academic teachers may say: „This LOUIS Rubric expresses what has already been the non subject learning outcome; but it wasn't described in this way“. If this is the case in the group, that is noteworthy for the plenary.
2. Mark the LOUIS competence with the highest relevance for the course in question – discuss in the small group why and how
3. Within the chosen LOUIS competence, mark the dimension with the highest relevance for the course – discuss why and how
4. Within that dimension, mark the ““ progressive performance descriptor“ that best describes the desired Learning Outcome for the course: the level below which students should fail. **NB** Identification of a „progressive performance descriptor“ which reflects the level that students really need to have at the start of the course,

signifies what might be called a “Learning Income”: a statement of what the student needs to know, understand or be able to do at the beginning of the learning process.

Viewers of the recorded session are invited to undertake the same activity: alone or with one or two colleagues. Viewers of the recording are invited to respond also by email to kees.kouwenaar@vu.nl.

So we now start the group work, for which we have 25 minutes

Time for group work

Return to plenary with reports from the groups

III LOUIS – your course

- Steps beyond the seminar
 - Your course ~ LOUIS
 - Low hanging fruit & planting new fruit trees
 - Teaming up

In this seminar – particularly in Part II – we talked about Learning Outcomes and how the LOUIS approach can help to transform broad competences into progressive performance descriptors showing decreasing weakness and increasing complexity and sophistication in crucial dimensions of the competences.

Then, in the interactive section of this Part III, participants had a first look at how the LOUIS approach can help them articulate meaningful learning outcomes for their own courses in general academic and personal competences.

Hopefully, this showed that

- integrating general competences into regular teaching & learning is important and part of the Aurora education Vision
- the Aurora Competence Framework offers academic teachers useful tools to actually do this, and
- using those tools is not strenuous extra work, but a rewarding manner to increase learning without increasing the teaching load.

For participants and viewers who are attracted to this approach, this seminar may not be the end.

In the last few slides, we will offer some suggestions for follow-up: What to do and how to do it.

We will look at:

- Further comparative analysis between your course description and the LOUIS approach and what you can pick from that.
- Very easy ways, easy ways, and less easy ways to incorporate your findings into your teaching.
- How to do this and who to do it with.

III LOUIS – your course

- Steps beyond the seminar
 - Your course ~ LOUIS
 - Low hanging fruit & planting new fruit trees
 - Teaming up

During this seminar, participants may have started to identify LOUIS descriptors that really match the general learning outcomes they cherish for their course, but may not have finished this process during the seminar.

We can suggest the following next steps:

- △ In your own time, have a second look at the LOUIS rubrics
 - △ Choose maximum 3 competences and within those, in total maximum 5 dimensions that best relate to the learning outcomes beyond subject knowledge & skills that you hold valuable.
(if you would like to choose more, save this for maybe two years from now, after the first 6 have become embedded)
 - △ Highlight the descriptors of what “the students should really demonstrate at the end of the course/module”
NB distinguish this from the descriptors of what “all students should ideally have at the end, but usually only the best actually do”
NB 2 If you can also identify the descriptor of what “students should really have when they start the course/module, or else they have a grave risk of failing”, then you will have identified a ‘learning income’ of your course/module.
 - △ Discuss these descriptors with colleagues: in the degree programme, in the

school, in Aurora.

- ▲ If you are still happy with them, start explaining to students that this is what you expect of them – in addition to the subject expertise. Merely explaining it to students will already lead to an increase in their development of that competence.

III LOUIS – your course

- Steps beyond the seminar
 - Your course ~~ LOUIS
 - **Low hanging fruit & planting new fruit trees**
 - Teaming up



While ‘merely explaining to your students’ already helps, this doesn’t mean that you should leave it at that.

Here are some suggestions for the further incorporation of your non subject learning outcomes into your courses.

They are suggestions only, you as academic teachers are indeed quite competent in these matters.

Here are the suggestions:

- △ Check your current curriculum and planned teaching & learning activities.
 - △ Identify where existing activities already further general learning outcomes, but where this could be clarified and made more explicit
 - △ Identify where you can infuse general learning outcomes into existing activities fairly easily.

These first two steps are already excellent and important strides towards implementing the Aurora Education Vision: pick your **low hanging fruit**.

- △ Identify which learning outcomes, that are important to you, but can’t be easily fitted into the existing teaching & learning activities.
- △ Lean back and reflect: are the missing general learning outcomes so important that they warrant a reconsideration and redesign of the course/module?

This means that you need to plant new fruit trees.

This may be a step only to be considered in the longer term. Possible windows of opportunity for such a redesign might be:

- ▲ A general initiative at Faculty or University level to rethink and redesign curricula
- ▲ An assignment in an academic teaching staff development programme at your university

III LOUIS – your course

- Steps beyond the seminar
 - Your course ~ LOUIS
 - Low hanging fruit & planting new fruit trees
 - **Teaming up**

In the previous two slides, we showed some suggestions for next steps after this seminar.

If these suggestions merely trigger to generate other and better ideas, they have served their purpose.

The suggestions were formulated towards individual teachers, but there is strength in collaboration.

We would suggest that you:

- ▲ Find like-minded academic teachers in your own university and/or in other Aurora universities – to inspire and support each other
- ▲ Look for Academic Staff Development opportunities in your own university and/or other Aurora universities – to give you a more structural framework
- ▲ Talk with your institutional Aurora coordinator – who can help you find partners and possibly point to resources
- ▲ Use the Aurora Competence Framework Expert and Support Centre for counselling, support and advice. Feel free to contact kees.kouwenaar@vu.nl.

III LOUIS – your course

- Steps beyond the seminar
 - Your course ~ LOUIS
 - Low hanging fruit & planting new fruit trees
 - Teaming up

This brings us to the end of Part III of the Aurora seminar on Learning Outcomes beyond Subject Expertise.

In this part, participants in the live seminar compared the articulated learning outcomes of their own course/module with the competences and their performance descriptors in LOUIS: Learning Outcomes in University for Impact on Society, based on the VALUE approach.

The purpose was to see if and how this can lead to a better, more explicit articulation of the general academic and personal learning outcomes that you as academic teachers see as most important.

Suggestions were offered on follow-up steps to identify low hanging fruit and how to deal with the need to plant new trees.

And suggestions were offered on how to muster support as an individual academic teacher.

For any follow up questions, feel free to contact kees.kouwenaar@vu.nl.

Wrap up

- Steps beyond the seminar
 - Your lessons
 - Our lessons
 - Follow up

After the three parts, the Aurora Seminar on Learning Outcomes beyond Subject Expertise draws to a close.

This seminar comes to its end.

Hopefully, it showed that

- Integrating general competences into regular teaching & learning is important and part of the Aurora Education Vision
- The Aurora Competence Framework offers academic teachers useful tools to actually do this, and
- Using those tools such as LOUIS (Learning Outcomes in University for Impact on Society) is not strenuous extra work, but a rewarding manner to increase learning without increasing the teaching load.

These three parts of the seminar focused on

- I. The Aurora Education Vision,
- II. Learning Outcomes beyond Subject Expertise, and
- III. Support and suggestions to put this into practice.

The wrap up part of the seminar invites participants to give more observations and comments on:

- what participants have found more or less useful in the seminar,
- suggestions for further improvement of the seminar programme and
- Suggestions for follow up activities at the level of individual academic teachers, separate Aurora universities, or Aurora as a whole.

Viewers of the recorded sessions are invited to send in their comments and observations.

Open floor

With these observations and comments, the seminar has come to an end.



AURORA

Competence Framework

Learning outcomes beyond subject expertise