

## GUIDELINES FOR DESIGNING OUTCOME – BASED CURRICULUM

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## **INTRODUCTION**

Curriculum is defined as an “inventory of activities related to the design, organization and planning of an education or training action, including definition of learning objectives, content, methods (including assessment) and material, as well as arrangements for training teachers and trainers “(Terminology of European education and training policy, 2014).

Curriculum designing is a multi-step, purposeful, systematic and collaborative process to achieve improvements in the educational system. The purpose of this guide is to provide lecturers with general suggestions and recommendations and assist them in designing and implementing outcome-based curriculum. It focuses on the structure of a curriculum development, compulsory components of the curriculum, and essential issues related to the design process of the curriculum.

The process described in these guidelines and illustrated by various examples and figures is not intended to be prescriptive but, rather, to suggest how to design an outcome-based curriculum.

### **1. DEFINITION OF TERMS**

#### **OUTCOME – BASED CURRICULUM**

A type of curriculum where the most important are learning outcomes (knowledge, skills and attitude) acquired by learner. The curriculum focuses on what a student should be able to do in real world upon completion of the curriculum. The curriculum defines the objectives of the study to be carried out, including the expected learning outcomes, the nominal duration and volume of study, the requirements for commencing the studies, the list and volumes of modules, brief descriptions and options and conditions, requirements for graduation. The curriculum is formalized as an official document.

#### **COMPETENCY**

A person's capability to apply or use related knowledge, skills and abilities to successfully perform the tasks (functions) in a defined work. Competencies can be the basis for skill standards that specify the level of knowledge, skills, and abilities required in the workplace as

well as potential measurement criteria for assessing competency attainment. Competence is a measure of both proven skills and proven knowledge.

## MODULE

A module is a unit of complete structure based on the learning outcomes of a curriculum, which brings together topics into a targeted set. In the context of adult education, the term refers to an integral part of a longer curriculum that a learner can, if desired and possible, acquire without going through the whole.

## LEARNING OUTCOMES

The knowledge, skills and attitudes acquired as a result of learning or their sets (competences), the achievement of which can be demonstrated and assessed. Learning outcomes are described at the minimum or basic level required to complete a curriculum or module. The achievement of learning outcomes is decided through assessment.

## PASSING CRITERIA

Learning outcomes are acquired at the level that enables to work at the satisfactory level in the work environment.

## ASSESSMENT METHOD

Form of proof of acquired knowledge and skills. Attitudes are assessed when if they manifest themselves through action.

## ASSESSMENT CRITERIA

Describe the expected level and extent of knowledge, skills and attitudes to be demonstrated by the assessment method.

## TEACHING METHOD

A form of targeted joint activity of the learner and the teacher to achieve the learning outcomes. Learning methods can be completed independently, with the teacher and/or with fellow learners. Learning methods are usually described from the learner's point of view (Aruväli *et al*, 2016, p 3).

## 2. FORMAL STRUCTURE FOR CURRICULUM DEVELOPMENT

The design of curriculum or instruction should be formal and systematic (El Sawi, 1996; Diamond, 2008; Dee Fink, 2013; Nilson, 2016). Once the objective and a content of a curriculum has been determined, the design process can begin, including its learning outcomes, content, assessment and evaluation mechanisms, which will determine its composition and duration (Tractenberg *et al*, 2020).

One of the opportunities in the curriculum designing process can be based on the five-phase-paradigm proposed by Nicholls (2002).

1. Select or identify learning outcomes
2. Select or develop learning experiences that will help students achieve the learning outcomes
3. Select or identify content that is relevant to learning outcomes
4. Identify or develop assessments to ensure learner is progressing towards learning outcomes
5. Evaluate the effectiveness of the learning experiences for leading learners to the learning outcomes.

Before engaging with Nicholl's five design phases, two key aspects of teaching and learning should be understood: Bloom's taxonomy and Messick's assessment criteria.

### [Bloom's taxonomy of cognitive complexity](#)

A model describing cognitive complexity in learning processes was proposed by Bloom in 1956 (Bloom, 1956). The model introduced a six-level hierarchy, ranging from "Remember" (relating to the ability to recall information) to "Evaluate" (concerning the ability to make and defend judgments, or assess theories and outcomes) – see Figure 1. The levels are hierarchical in the sense that learners need to have demonstrated achievement of prior Bloom's levels before advancing to more complex ones. The taxonomy thereby introduces a developmental trajectory in learning; this can guide the articulation of coherent learning outcomes by helping to identify the most appropriate (measurable, active) verbs that express expected behaviors of individuals at the corresponding Bloom's level. For example, achieving the level Understand means to be able to classify, select or explain a given piece of information: here, the verbs classify, select and explain are concrete, observable and assessable (Tractenberg *et al*, 2020).

<b>Evaluate</b> Make & defend judgements, assess theories & outcomes	<b>EVALUATION</b> Critique, compare ideas, solve, recommend, rate	Higher-order 'critical' thinking skills
<b>Synthesise</b> Pull ideas into a coherent whole, create new ideas	<b>SYNTHESIS</b> Combine, formulate, illustrate, imagine, design, invent, compose	
<b>Analyse</b> Resolve ideas into simple parts, identify patterns	<b>ANALYSIS</b> Calculate, examine, model, test, break down, infer, predict, test, solve	
<b>Apply</b> Apply knowledge to real situations	<b>APPLICATION</b> Operate, manipulate, choose, experiment, modify, prepare, produce	Lower-order thinking skills
<b>Understand</b> Demonstrate understanding of facts	<b>COMPREHENSION</b> Distinguish, classify, select, review, discuss, indicate, explain, estimate, locate, summarise	
<b>Remember</b> Recall/reiterate information	<b>KNOWLEDGE</b> Memorise, recognise, identify, describe, reproduce, list, define, label, name, state, outline, order, arrange	

Figure 1. Bloom's taxonomy of cognitive complexity, and associated verbs that can be used to create learning outcomes.

The verbs reflect a developmental trajectory, from lower- to higher-order thinking skills, they should be concrete and observable, and relate to how instructors will assess achievement of target learning outcomes (Tractenberg *et al*, 2020).

### Messick's criteria for valid assessment

In 1994, Messick outlined core criteria for assessment validity (Messick, 1994), which can be formulated as three questions:

1. What are the KSAs (Knowledge, Skills, Abilities) that learners should possess at the end of the curriculum?
2. What actions or behaviours by learners will reveal these KSAs (Knowledge, Skills, Abilities)?
3. What tasks will elicit these specific actions or behaviours?

These support all phases of curriculum development and are particularly helpful in selecting KSAs and learning outcomes (Tractenberg *et al*, 2020).

### Nicholl's five phases of curriculum design



Nicholls' paradigm for curriculum design, illustrated in Figure 2. Within this framework, each phase shows clear dependencies; all are ultimately dependent on the first – defining LOs.

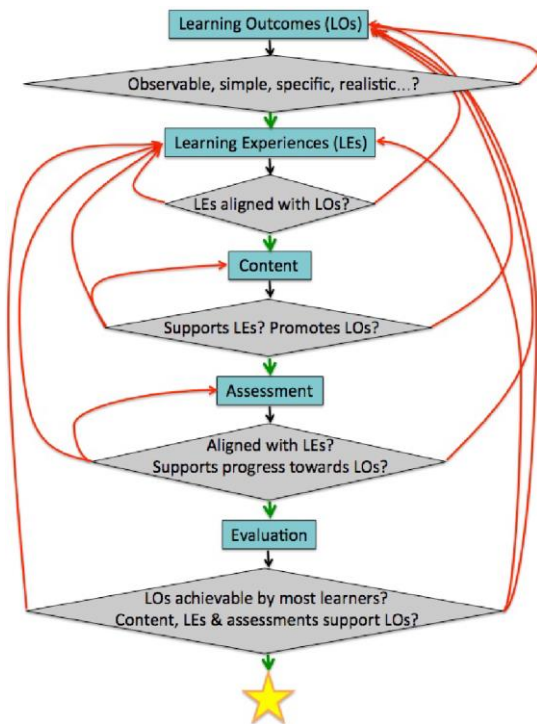


Figure 2. Nicholls' five phases of curriculum design and their dependencies.

For each phase (rectangles), the key questions that should be asked are shown (diamonds). Where questions haven't been satisfied, that phase or previous phases or the LOs should be revisited (red arrows); once they have been satisfied, this feeds forward into the next phase(s) (green arrows). When all questions are satisfied, the curriculum or instruction can be characterized, with concrete evidence, as successful (star) (Tractenberg *et al*, 2020).

### Phase 1: Define intended learning outcomes

Identifying learning outcomes is the first phase in curriculum design. Focusing on outcomes first is essential to ensure that all later decisions contribute to a coherent and realistic curriculum. Learning outcomes are measurable statements that articulate at the beginning what students should know, be able to do, or value as a result of taking a course or completing a program. Learning outcomes often take this form:

As a result of participating in (program/course name), you (students) will be able to (action verb) (learning statement). Use your learning outcomes as a tool. Let them inform your choice of teaching strategies, course activities, and assessments (Tractenberg *et al*, 2020).

#### Phase 2. Select learning experiences that will lead to the learning outcomes

Phase 2 involves identifying Learning Experiences (LEs) (lectures, webinars, solving problems, work in groups, peer instruction, flipped classrooms, etc.) that would, if a learner completed them, lead to the learning outcomes. This is an example of how defining learning outcomes directs the decisions that are made throughout the curriculum- and instructional-development process: learning outcomes help lecturers to choose the most appropriate learning experiences for supporting learners to achieve desired learning outcomes (Tractenberg *et al*, 2020).

#### Phase 3. Select content relevant to the accomplishment of learning outcomes

Finding content that can be featured in the Learning Experiences is Phase 3, not Phase 1, of the process. However, content selection should be judicious: it should include only material that is likely to support achievement of the specific learning outcomes. Once appropriate core content has been identified, other content that does not have a clear rationale in terms of promoting learning outcomes can be offered as auxiliary material (e.g., as suggested reading for learners to find additional information) (Tractenberg *et al*, 2020).

#### Phase 4. Develop assessments to ensure learner progression

In a successful curriculum, learners must be given opportunities to demonstrate that they're progressing; these opportunities are the curriculum's built-in assessments (tests, evaluations, feedback collection, measurements or other documentation of learning progress, skill acquisition, etc.). Fundamental to the process outlined in Nicholls' model is the inclusion of two different types of assessment: specifically, to evaluate learning – i.e., formative assessment to detect changes in learners' performance as a result of instruction, to characterize their strengths, and identify (diagnose) their weaknesses (formative results can help make decisions about how to modify instruction (including self-directed instruction) to promote learning), to evaluate the effectiveness of the instruction – i.e., summative assessment to determine whether the learning outcomes have been achieved (summative results help to make decisions about learners (e.g., ranking performances, setting pass/fail points)) (Tractenberg *et al*, 2020).

#### Phase 5. Evaluate effectiveness of the curriculum/instruction

The final step in developing a curriculum is to plan, and complete, an actionable evaluation. This involves collecting (qualitative and quantitative) data about the curriculum - including

summative assessments - to determine its quality or effectiveness, with the aim of deciding whether to adopt, reject or revise any of its specific features (Worthen & Sanders, 1987). Curriculum effectiveness is defined in terms of the success of the implemented curriculum in leading learners to the outcomes articulated in Phase 1: in other words, it is a measure of how well the attained curriculum is aligned with the intended curricular objectives. In the absence of such alignment, programs or courses cannot be characterized as either successful or effective (Tractenberg *et al*, 2020).

### Issues taken into account in a curriculum designing process

The specificity of the adult learner should be taken into consideration when designing a curriculum. An adult's interest in learning is usually based on an issue, problem or need. This may require improving lecturer qualifications or acquiring specific additional skills. It should also be borne in mind when planning training that time is usually an expensive resource for an adult. Therefore, it is necessary to consider how long and extensive training is needed to achieve the learner's goal. It is common that the conditions for passing the training require a fairly large amount of participation in classroom learning, including theoretical learning. At the same time, most adults today have access to a computer from which they generally obtain theoretical material. Just attending and listening to the lecturer does not guarantee learning. Therefore, the conditions for completing the training should rather focus on assessment methods and emphasize participation in practical activities. When dealing with theory in contact learning, then in a deliberative and interpretive manner rather than in an informative way. (Aruväli *et al*, 2016, pp 8 – 9).

When planning the learning process, it is worth considering that a person is better able to remember what he or she has learned in the form in which he or she remembered it. If participants are able to apply what they have learned in practical work and activities, the main part of the studies should be practical. Learning a theory generally does not develop the ability to apply it. For example, in First Aid training, looking at splint types in a picture and completing a worksheet based on an instructional film is never a substitute for practical splinting exercises. However, in the case of practical training alone, there is a risk that the learner will not understand why he or she is doing something in this way. The better the theory and practice are integrated into the learning process, the more likely it is that the learner will use them

together later. As an adult is generally a pragmatic learner, he or she wants to learn in order to make something better or more understandable in his or her life. He is seldom interested in knowledge simply because of the knowledge itself (Aruväli *et al*, 2016, pp 8 – 9).

To achieve expected outcomes the learning process has to be thoroughly planned. It is recommended to combine distance learning and contact learning. Different forms of learning, including e-learning, are recommended to diversify teaching.

### **3. BASIC COMPONENTS OF A CURRICULUM**

1. BASIS FOR COMPLETING THE CURRICULUM (EQF 4)
2. COMPETENCY (KNOWLEDGE, SKILLS, ATTITUDE) AND EMPLOYER EXPECTATIONS
3. TITLE OF CURRICULUM
4. OBJECTIVE OF CURRICULUM
5. TARGET GROUP
6. REQUIREMENTS FOR COMMENCING THE STUDIES
7. TITLE OF MODULE
8. OBJECTIVE OF MODULE
9. LEARNING OUTCOMES
10. EVALUATION

### **4. BASIS FOR THE COMPLETING THE CURRICULUM (including EQF 4)**

The European Union developed the European Qualifications Framework (EQF) as a translation tool to make national qualifications easier to understand and more comparable. The EQF seeks to support cross-border mobility of learners and workers, promote lifelong learning and professional development across Europe.

The EQF is an 8-level, learning outcomes-based framework for all types of qualifications that serves as a translation tool between different national qualifications frameworks. This framework helps improve transparency, compatibility and portability of people's qualifications and makes it possible to compare qualifications from different countries and institutions.

The EQF covers all types and all levels of qualifications and the use of learning outcomes makes it clear what a person knows, understands and is able to do. The level increases according to the level of proficiency, level 1 is the lowest and 8 the highest level. Most importantly the EQF is closely linked to national qualifications frameworks, this way it can provide a comprehensive map of all types and levels of qualifications in Europe, which are increasingly accessible through qualification databases (The European Qualifications Framework, 2021).

Tabel 1. Level 4 and 6 – learning outcomes (The European Qualifications Framework, 2021; Kiehelä *et al*, 2020, p 8).

EQF 4	Knowledge	Skills	Responsibility and autonomy
	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
TURKICH NQF 4	Have an advanced theoretical, methodological and factual knowledge in a field of work or study, including inquiring thinking.	Have advanced skills, including the quality of mastery and innovation, required to solve complex and unpredictable problems in a specialized field of work or study.	Make decisions by taking responsibility in unpredictable work or study contexts and manage complex technical or professional activities or projects in such contexts. Take responsibility in managing the professional development of individuals and groups. Have experience in the concepts, policies, tools and practices of lifelong learning approach for a field of work or study as well as the relationship of them with formal, non-formal and informal ways of learning. Have awareness of social and moral issues in assessing work or study.

EQF 6	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups
TURKICH NQF 6	Have an advanced theoretical, methodological and factual knowledge in a field of work or study, including inquiring thinking	Have advanced skills, including the quality of mastery and innovation, required to solve complex and unpredictable problems in a specialized field of work or study	Make decisions by taking responsibility in unpredictable work or study contexts, and manage complex technical or professional activities or projects in such contexts. Take responsibility in managing the professional development of individuals and groups Have experience in the concepts, policies, tools and practices of lifelong learning approach for a field of work or study as well as the relationship of them with formal, non-formal and informal ways of learning. Have awareness of social and moral issues in assessing work or study.

The Turkish Qualifications Framework, this is based on the European Qualifications Framework, is given below.

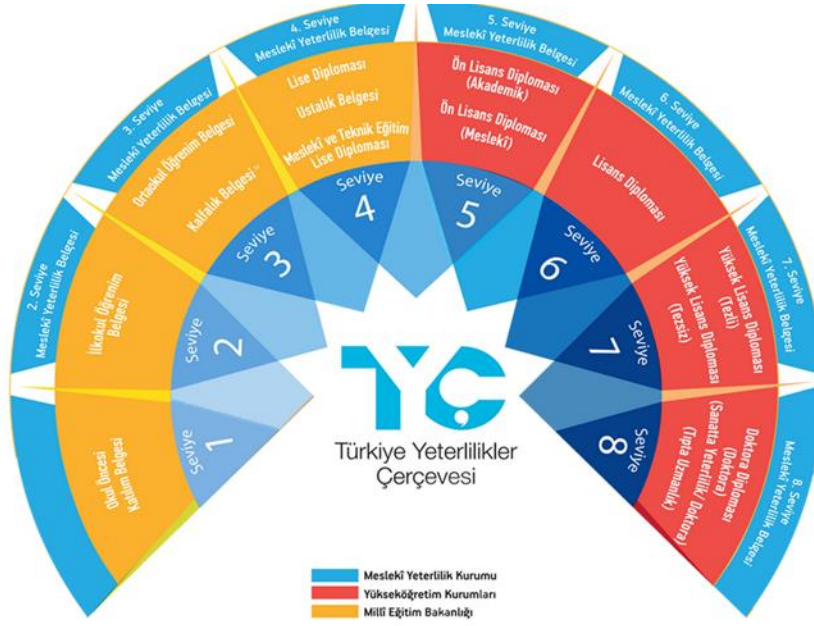


Figure 3. The Turkish Qualifications Framework, 2021.

There are four main competencies for all the Turkish Prison and Probation Service' staff have been identified during the Activity 1.3. The suggested competencies are based on the European Qualifications Framework.

These four main competencies are given below:

1. Security and use of force
2. Rehabilitation and social integration
3. Ethics and Law
4. Management and professionalism (See Figure 4).



Figure 4. Four main Competencies for Turkish Prison and Probation Service' staff. Kiehelä *et al*, 2020, pp. 12 –13.

## 5. COMPETENCY (KNOWLEDGE, SKILLS, ATTITUDE) AND EMPLOYER EXPECTATIONS

There are several definitions of the concept of competence. In national qualification frameworks of EU member states, competence is seen as the ability to apply knowledge and skills at a certain level of independence and autonomy. The concept of competence is used in education profiles and in education programme design in vocational education. The development of competence descriptions is useful when mapping professions. Mulder (2014) offers a user-friendly approach to competencies by concluding that the development of competence models should not be done in a rigid way. The reality of professional practice is often very dynamic, but on the other hand, quality requirements in certain professional domains require a certain level of standardization (Mulder 2014; Kajander *et al*, 2020, p 10).

There is a slight difference when discussing inner competencies (= competency) and outer competences (= competence). Kouwenhoven has defined it clearly and simply: Competency is the capability to choose and apply an integrated combination of knowledge, skills and attitudes with the intention to realize a task in a certain context (for example prison officer work). Competence is the capacity to realize up to standard the key occupational tasks that characterize a profession. In this competence analysis report we have focused on defining important competences (= competence) for the staff of Turkish prison and probation services without going in to details of personal competencies (= competency) (Kouwenhoven 2005, p 5; Kajander *et al*, 2020, p 10).



In general, competencies should reflect the strategy and vision of an organization (Kajander *et al*, 2020, p 11). In Estonia, the values of a prison officer are formulated and a code of ethics for prison officers has been developed the main duty of the Ministry of Justice is to plan and to carry out a legal and criminal policy of the state, which will help ensure an open and secure society, where people may be assured of the use and protection of their rights (Ministry of Justice, 2021). Suggested vision and values of the Turkish Prison Service were (See Table 2):

Table 2. Suggested vision and values of the Turkish Prison Service (Kajander *et al*, 2020, p 11).

Visions and values in the Turkish prison services, based on analysis of the outcome of a workshop during activity 1.2 (09.01.2020)	
Vision: To provide safe and lawful execution of penal sanctions To provide rehabilitation opportunities to individuals who are under the custody of the prison and probation services	Values: justness, respect for human rights, equality, honesty, respect to the rule of law

The first of the suggested competencies is: Security and use of force. Competences in prison security are a central element in basic prison services work. The employees need a sufficiently wide perspective, covering know-how on communication and crises and conflict management. Sufficient use of force skills and other practical competences, such as substances control, are essential.” (Staff recruitment, training and development in the 21st century, 2018). An important element of the security activities in prisons is, that security activities are multi-pronged, meaning that they do not solely rely on physical and technical means of various kinds (static security), but also on personal contact and a general knowledge of what is going on in the institution (dynamic security) (UNODC 2015; Kajander *et al*, 2020, p 12).

Dynamic security is a working method by which staff priorities the creation and maintenance of everyday communication and interaction with prisoners based on high professional ethics and ensure that there is sufficient purposeful and meaningful activity to occupy prisoners, bounded by effective security. It aims at better understanding prisoners and assessing the risks they may pose as well as ensuring safety, security and good order, contributing to rehabilitation and preparation for release. Procedural security measures involve a procedure, process or a

set out routine that must be followed, which is in place to organise how prisons operate and manage the prisoners, among other things (UNODC 2015; Kajander *et al*, 2020, p 13).

The sub competencies of this main competence are:

- ✓ dynamic security
- ✓ procedural security
- ✓ static security
- ✓ use of force (Kajander *et al*, 2020, p 13).

Table 3. Main competence: Security and use of force (Kajander *et al*, 2020, p 16).

1. Main competence: Security and use of force		
Sub competencies	Knowledge	Skills
Dynamic security	Understands that dynamic security is the foundation of a safe prison and probation environment	Good verbal and non-verbal communication Stress management when working in challenging conditions
Procedural security	Procedures to ensure security of prisoners, staff and visitors  Risk assessment  Aware of authority and responsibilities assigned	Undertakes security precautions against behavior that could potentially cause a conflict  Uses necessary technological devices during security checks  Capacity to use reconciliation methods Acting in accordance with security principles
	Psychologists	Basic risk assessment skills Basic skills to act in case of threat, violence etc.
	Social work	Basic risk assessment skills Basic skills to act in case of threat, violence etc.
Static security	Safety measures in case of accidents, fire or during natural disasters (earthquake, fire, flood etc)	Capacity to act and take responsibility in critical situations Basic first aid skills
Use of force	Proportional and rightful use of force Legitimate use of authority	Has sufficient skills in using force in a legitimate and safe way
	Psychologists	Awareness what rights psychologists have in case of a violent incident

	Social workers	Awareness what rights psychologists have in case of a violent incident
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### 5.1. EMPLOYER' EXPECTATIONS

The employer, based on the expectations and needs of society, indicates which officials are needed. The employer describes the main job, the main competencies. Competence is a human ability to successfully perform the duties required at work and consist of knowledge, skills and attitude. The employer's expectations provide input to the learning outcomes of the output-based curriculum. The employer expects that the graduate of the curriculum will be able to perform the duties at a sufficient level (See Figure 3).

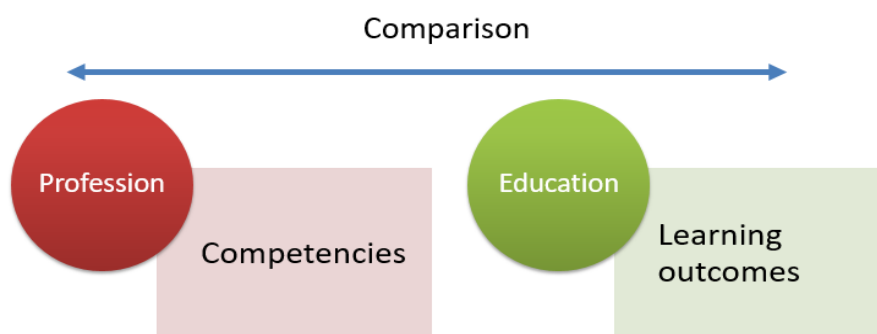


Figure 5. Main points of curriculum development (Kiehelä et al., 2020. Curricula Analysis Report No 1.3. Comparison of competencies and learning outcomes, p 11).

Creating an outcome-based curriculum is an ongoing process, always have to look at the big picture - if the employer's expectations change, then the outcomes should also be supplemented (See Figure 5). The outcomes, in turn, relate to assessment, teaching and learning. The modern learner needs examples, explanations and opportunity to analyse and discuss, ability to practice and act, but this places high demands on the teaching method, and it is also necessary to teach teachers about new approaches of learning (See Figure 6).

The functioning of the curriculum and its integrity must also be constantly evaluated. For example, the Estonian Academy of Security Science asks for feedback from students and alumni

and lecturers are attested. Curricula are regularly evaluated by both internal and external evaluators. The assessment of curricula is organized by the Estonian Quality Agency for Higher and Vocational Education (EKKA). EKKA is the national quality assurance agency responsible for evaluations of higher and vocational education in Estonia. EKKA's mission is to promote quality in the field of education and thereby increase the competitiveness of the Estonian society (Estonian Quality Agency for Higher and Vocational Education, 2021).

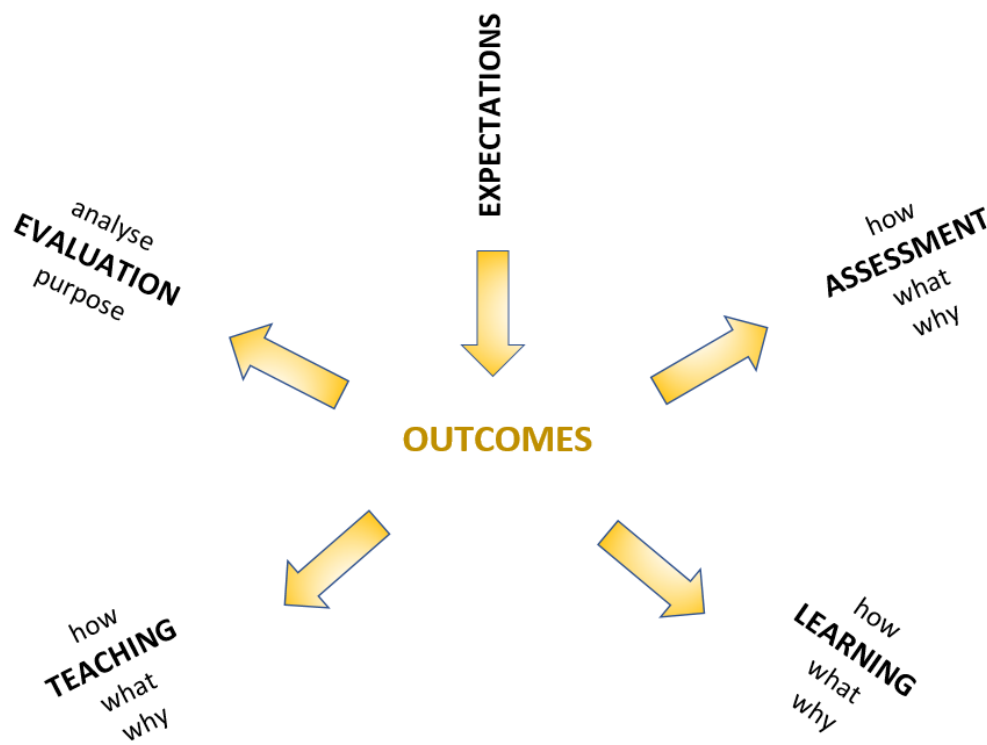


Figure 6. Circle of development of curriculum.

An example of the coherence of the components of the module of the curriculum "Prison Guard".

It's essential that the coherence of the module should be ensured. The module handles the issue of security in accordance with the competences. The objective reflects the title, where the level of generalization is higher. The objective is summarized learning outcomes. The learning outcome should be in line with the evaluation method. It should be a method that help lecturer make sure that the learning outcomes are achieved. The simulation is the most suitable method for example given below.

*Example*

Table 4. Coherence of the components of the module of the curriculum “Prison Guard”, the module of Carrying out Surveillance Activities (Prison Guard).

Implementation plan			
MODULE NO	Title of Module	Scope of Module	
1	Carrying out surveillance activities	... ECVTS	
Objective of Module The student copes with surveillance activities in prison			
Intended learning outcome (knowledge and skills) Student:	Evaluation criteria’ s Student:	Methods of assessment and assessment criteria	
1. Demonstrate knowledge of surveillance activities  2. Carries out scheduled and surveillance activities in prison	1. Demonstrates knowledge of prison surveillance activities and legislation.  2. Performs surveillance activities in accordance with the principles and tactics of the organization of surveillance, ensuring the safety of oneself and persons in prison and in accordance with the provisions of legislation.	1. Method: written multiple choice test Criteria: - recognizes prohibited items - justifies the prohibition of objects - lists surveillance activities and specifies their performance in prison the description is based on the provisions of the legislation  2. Method: simulation - in solving the task, follows the provisions of legislation - does not interrupt the solution of the task - solves the task in such a	

3. Compiles a surveillance-related document that meets the requirements set	3. Draw up an appropriate document in accordance with the requirements provided for in legislation  ...	way that it does not endanger anyone's life or health; - ¾ of items prohibited to the prisoner have been found and confiscated - properly document the event in the KIR environment  3. Method: preparation of the document - prepares procedural documents in accordance with laws and official instructions  ...	
	Content (topic)	Teaching and learning methods	Scope
	...	...	C – ac/h P – ac/h I – ac/h

## 6. TITLE OF CURRICULUM

It is essential that the title of the curriculum is worded as follows: attractive as well as informative. As for the length of the name, the rule is that the shorter it is better, but with the caveat that the name must express training content. The name of the training may not also make uncovered promises. A well-chosen name also indicates whether it is rather theoretical or practical training. (Aruväli *et al*, 2016, p 9).

It is therefore important to perceive this in the wording of the name needs of participants and be taken into account as well as clearly express what it means to study according to the curriculum. Care must also be taken to ensure that the name is not too long or also too informative due to its brevity. For the target audience to find training for them, it is important that the content of the training can be read from the title (Aruväli *et al*, 2016, p 9).

***Bad example:***

*Basic training – it is not enough informative, too general.*

***Good examples:***

*Basic Training for Prison Officer*

*Curriculum of Police Service*

*Management of conflicts in prison – gives an overview of field of application and a target group.*

## **7. OBJECTIVE OF CURRICULUM**

The formulation of the objectives of the curriculum is one of the most difficult, but the most important sections. If no goals have been set for study activities, it is not possible to assess the quality of studies. The general objectives of the curriculum are the applications of the educational institution as an education provider in offering, designing and organizing educational activities (Rutiku *et al*, 2009, p 27).

***Examples, after completing the training...***

***Bad example:***

*...the student has an overview of the functioning of the prison service – it is does not summarize all needed competences. It is not comprehensive.*

***Good examples:***

*...the student has knowledge of the prison service and basic skills for working as a guard – both knowledge and skills are mentioned.*

*...the student has knowledge of the prison service and the values of the organization – needed issues to perform duties in prison.*

*...the student assesses the possibilities of communication conflicts in prison and resolves a simpler conflict – officer has to have knowledge and implement them using skills.*

## 8. TARGET GROUP

Some trainings are aimed at a very wide target group, but for most, it is worth keeping in mind the specific group of people with these characteristics. Defining the target group, the curriculum also helps learners decide if training is available aimed at them. It is also a central element of the curriculum – a lot of help in formulating learning outcomes than the target group is set (Aruväli *et al*, 2016, p 10).

When defining the target group, a good balance of specificity and openness must be found. Where training is intended for everyone, there is a risk that the level of participants will be very different. It may happen that the target group is defined too narrowly, there are not enough people to train, or potential learners are deprived of the opportunity to participate (Aruväli *et al*, 2016, p 10).

The target group can be, for example, representatives of specific professions - teachers, electricians, customer service. Also, may indicate for the target group whether they are beginners or advanced. If there is no specific target group, it can be expressed in the curriculum with the notation “for everyone but then the risk to the group should be taken into account encounter so many different people that it is very difficult for them to help achieve learning outcomes (Aruväli *et al*, 2016, p 10).

### *Example*

- ✓ Prison officers without professional or higher education
- ✓ Adult with secondary education
- ✓ Chaplains of the Prison Service.

## 9. REQUIREMENTS FOR COMMENCING THE STUDIES



Sometimes the target group can identify indirect conditions for commencing studies or vice versa. However, they have important differences. For example, as a "Family Therapy Training" course is the target group of psychologists, you start learning the condition may be a higher education in psychology, or completion of an introductory course in family therapy. When learning there are no start requirements, it should be written that requirements are missing. The conditions for starting studies should be formulated as specifically as possible. Usually they are expressed in terms of either through previous education or work experience (Aruväli *et al*, 2016, p 16).

Using previous work experience as conditions for commencing studies, it should be specific because only experience does not always provide professional competence. Quality of previous work experience, for example, students may be asked to provide evidence of a professional certificate or, where appropriate, a certificate from the employer or job description. Prior work experience required the idea that the level of participants should be at the beginning of the training similar (for example, advanced training). Instead of previous experience, in most cases, less stringent ones are needed to set the conditions for commencing studies (Aruväli *et al*, 2016, p 16).

#### *Example*

- ✓ pre service training is completed
- ✓ acquired basic education
- ✓ citizens of the Republic of Estonia
- ✓ meet the Requirements set in the Civil Service Act, „Requirements for the education work experience and foreign language skills of officials “(impeccable background, C1 level of Estonian language).

## **10. TITLE OF THE MODULE**

Module is a unit of completed structure, which brings together topics into a targeted set, an integral part of a curriculum which can be acquired without going through the whole curriculum. Title of the module is worded as an activity.

***Bad example:***

*Self – Defence – general title, it is not a learner-centred formulation*

***Good example:***

*Use of Self – Defence – it should be worded as an activity.*

## **11. OBJECTIVE OF THE MODULE**

The objective of the outcome-based curriculum is learner – centered. The curriculum is described in two ways - as learning outcomes and as an objective that summarizes learning outcomes. In one case it is longer and more detailed (learning outcomes), in another it is shorter and more comprehensive (objective). Both learning outcomes and objectives describe what knowledge, skills or attitudes the learner at the end of the learning process has acquired. The competencies that are written about in the curriculum should be understood as knowledge, skills or attitudes, not as the right to do something (Aruväli *et al*, 2016, p 12). Module outcomes are what the student should be able to demonstrate or perform at the end of the module. Learning outcomes are small steps to achieve the course outcome. This is to be communicated again and again to the student.

While designing curriculum it sometimes can be difficult to differentiate objective and learning outcomes, because learning outcomes are also objectives. The principle is that the objective of learning summarizes the most general level of expected result. The objective gives a clear understanding of what the main outcome is learning oriented. Learning outcomes derive from the objective of learning and explain and specify it. Objectives and outcomes of the curriculum have to help students to become competent not only in knowledge, but in the practical skills too.

The wording of a good objective is short (usually one-sentence), general, and learner descriptive of the result. When formulating an objective, it is advisable to start with the words “As a result of training a learner...”. It is clear from this wording that the objective is set by

training organizers for learners. The participant also learns what is main direction and focus of the training. At the same time, it describes where the learner should reach the end of the learning process.

***Bad example:***

*Has an overview of the self-defence techniques – focuses on theoretical knowledge only, it is not enough for performing prison guard duties*

***Good example:***

*Use Self-Defence techniques effectively – summarizes knowledge and skills.*

## **12. LEARNING OUTCOMES**

A curriculum should specify the knowledge, skills, abilities expressed in the learning outcomes. The starting point of the curriculum is the articulation of the learning outcomes: everything follows from these, including learning methods and content, the development of assessment, and evaluation of achieving the outcomes of the curriculum.

Clearly identified learning outcomes allow lecturers to:

- ✓ Make hard decisions about selecting course content
- ✓ Design assessments that allow students to demonstrate their knowledge and skills
- ✓ Design teaching strategies or learning activities that will help students develop their knowledge and skills
- ✓ Measure student learning accurately and effectively

Having access to articulated learning outcomes helps students:

- ✓ Decide if the course is a good fit for their academic trajectory
- ✓ Identify what they need to do to be successful in the course
- ✓ Be mindful of what they are learning (Setting Learning Outcomes, 2021).

Getting Started with Setting Learning Outcomes

Ask yourself what the most important things a student should know (cognitive), be able to do (skills), or value (affective) after completing the course/program.

- ✓ Consult a list of action verbs, which are verbs that result in overt behavior or products that can be observed and measured.

- ✓ Avoid verbs that are unclear and cannot be observed and measured easily, for example: appreciate, become aware of, become familiar with, know, learn, and understand.
- ✓ Draft a list of possible learning outcomes. Be realistic in considering what is possible for students to accomplish in your course. Only keep the most essential learning outcomes (Setting Learning Outcomes, 2021).

Learning outcomes are formulated from the purpose of the learning process and should be measurable, evaluable and acquired for a limited period of time.

[There are some rules for compiling learning outcomes:](#)

There should not be many learning outcomes, regardless of the length of training, because otherwise it is difficult for all of them to be taken into account in the learning process and their achievement to evaluate.

Learning outcomes shall be described in a comprehensive manner, not by distinguishing between knowledge and skills. Rather, learning outcomes are grouped by topic. If sufficiently summarize learning outcomes and describe them holistically it is possible to formulate the main aims as 4-6 learning outcomes.

Learning outcomes describe a learner's learning result, not a process. Therefore expressions: "gain experience" or "gain insight" are not suitable. Also, not good wording "is able" and "is capable" because they are unclear in terms of results.

Different verbs are used, assume that only on mere knowledge is helpful in a few areas. At the same times the general principle that the fewer verbs, the clearer. For example, instead of saying "can analyze the marketing situation in your field of business ", can be said "analyses" the marketing situation in their field of Business ". In this case, the learner should also do so in the learning process. If he only hears the trainer theoretically discussing, what a marketing situation could be, he himself not analysis. In addition, different people understand the meaning of the word "knows" differently. When choosing verbs, it is important to ensure that they fit the subject matter acquisition of a subject or activity.

Table 5. Ambiguous words or phrases to avoid.

<b>Ambiguous words or phrases to avoid</b> (BLOOM TAXONOMY)		
Believe	Hear	Realize
Capacity	Intelligence	Recognize
Comprehend	Know	See
Conceptualize	Listen	Self-Actualize
Experience	Memorize	Think
Feel	Perceive	Understand

If the objective is more general, then in the learning outcomes except attitudes must be appreciable. When the assessing learning outcomes, consider that the objective should be achieved.

Attitudes can be, if desired, described along with knowledge and skills, but cannot usually be assessed and sometimes are not correct. For example, the learning outcome "is tolerant for others" can be assessed to a certain extent in the learning process, only at the level of behavior. When a person is in their minds intolerant, but does not show it, it is him right and interference is difficult on the one hand and, on the other hand, a similar manifestation of intolerance (Aruväli *et al*, 2016, p 12).

Learning outcomes are the most important and central to the curriculum component. Based on them, teaching methods and the structure of learning, the content of learning and assessment methods are decided. Therefore, it is important to see learning outcomes formulation and ask about their achievement on learner feedback. If necessary, learning outcomes can be specified. One of the control points is to monitor whether there are learning outcomes logically in line with the title and objective.

**Bad example:**

Knows the basis of Self – defence – a prison officer should be able to implement knowledge in practical work. For this purpose, he/she needs assigned skills.

**Good example:**

Resolves an event using Self – defence techniques legally, safely and effectively – demonstrating both knowledge and skills. It is necessary and in accordance with the main competences of a prison officer.

Learning outcomes are the key to the whole curriculum. Different verbs on different levels help to formulate learning outcomes. Benjamin Bloom created a taxonomy of measurable verbs to help us describe and classify observable knowledge, skills, attitudes, behaviour and abilities. The theory is based upon the idea that there are levels of observable actions that indicate something is happening in the brain (cognitive activity). By creating learning objectives using measurable verbs, you indicate explicitly what the student must do in order to demonstrate learning (Bloom’s Taxonomy of Measurable Verbs, 2021).

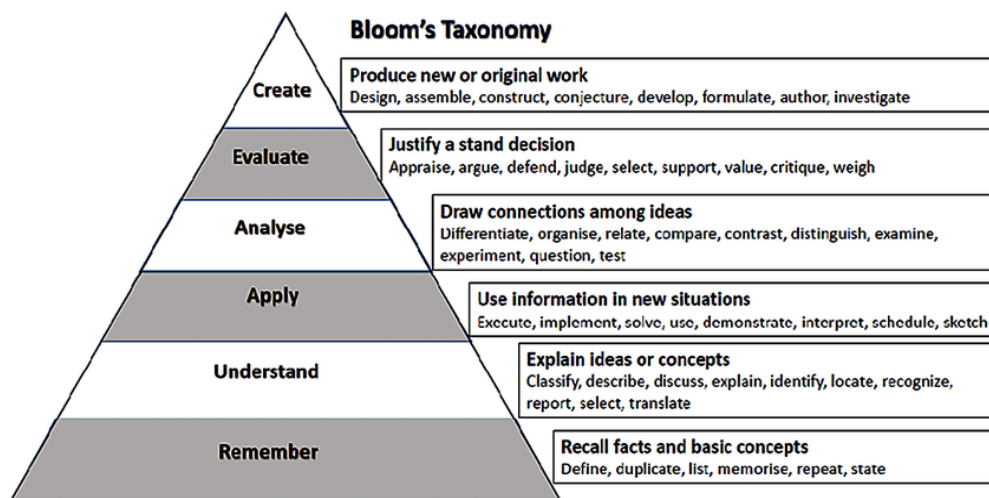


Figure 7. Bloom's taxonomy Source: (Bloom *et al*, 1956).

Compiling curricula, it is advisable to analyse existing programs and compare their content with the needs of the employer. Then, based on the goal of the curriculum, the outcomes are formulated in a logical manner. Typically, the first module consists of the basic knowledge and skills relevant to the acquisition of the outcomes of each subsequent module.

Schematic overviews of the possible structure of the curriculum are given as an example below. In general, given curriculum is considered as a whole, but it contains separate parts (modules) that are interconnected (See Figure 8).

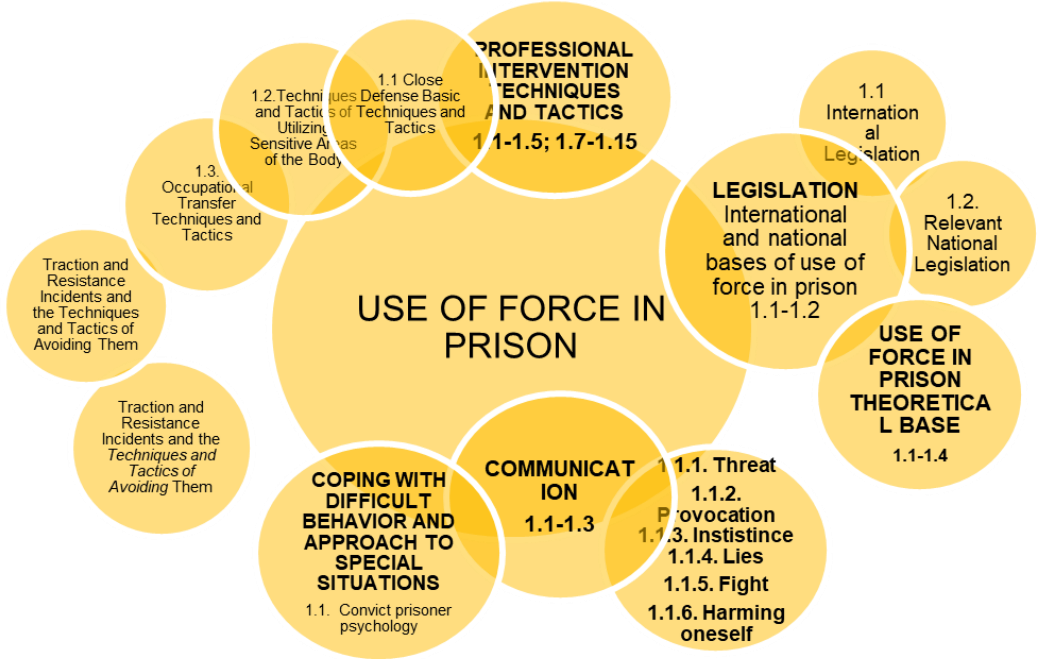


Figure 8. Schematic overview of program Occupational Intervention Techniques and Tactics – Training – (Use of Force).

See overview of training program Emergency Situations and Crisis Management in Prisons and ‘searches in Prison’ (See Figure 9).

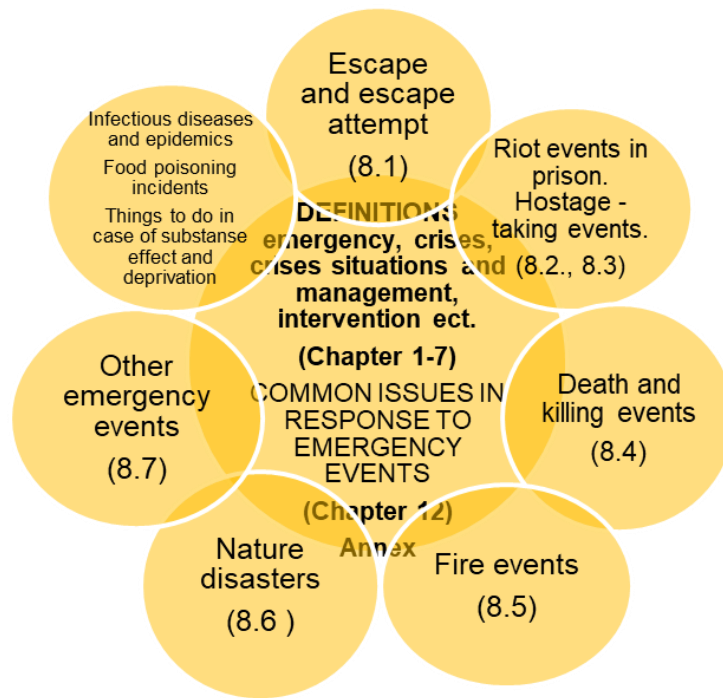


Figure 9. Schematic overview of training program Emergency Situations and Crisis Management in Prisons and 'searches in Prison'.

### 13. EVALUATION PROCESS

The evaluation process is one the mandatory parts of the learning process. Evaluation aims to verify the degree of acquisition of the skills and the achievement of the learning outcomes. To better understand the evaluation process, it is worth looking at it more broadly. Here it is essential to explain the differences between evaluation and assessment.

Depending on the authority or dictionary consulted, assessment and evaluation may be treated as synonyms or as distinctly different concepts. As noted above, if a distinction exists, it probably involves what is being measured and why and how the measurements are made. In terms of what, it is often said that we assess students, and we evaluate instruction. This distinction derives from the use of evaluation research methods to make judgments about the worth of educational activities. Moreover, it emphasizes an individual focus of assessment, i.e., using information to help identify a learner's needs and document his or her progress toward meeting goals. (Whiteneck, 2011).

Evaluation is perhaps the most complex and least understood of the terms. Inherent in the idea of evaluation is "value." When we evaluate, what we are doing is engaging in some process that



is designed to provide information that will help us make a judgement about a given situation. Generally, any evaluation process requires information about the situation in question. A situation is an umbrella term that takes into account such ideas as objectives, goals, standards, procedures, and so on. When we evaluate, we are saying that the process will yield information regarding the worthiness, appropriateness, goodness, validity, legality, etc., of something for which a reliable measurement or assessment has been made. Procedures used to determine whether the subject meets preset criteria, such as qualifying for special education services (Kizlik, 2012).

Definition of evaluation: evaluation of the achievement of a learner's learning outcomes, including self-assessment, is part of a learning process that provides a fair and impartial assessment of a learner's level of knowledge and skills according to the learning outcomes described in the curriculum, based on defined assessment criteria (Pilli, 2009).

A number of key evaluation principles follow from this definition:

1. It is assessed whether the learner has acquired the learning outcomes of a subject, module or other part of the curriculum. It also means that the relationship between the students and the development of the student during the acquisition of the subject is not assessed. The assessment is based on whether and to what extent the competencies acquired by the learner correspond to the intended learning outcomes.
2. Evaluation takes place using assessment methods appropriate to the learning outcomes. Assessment methods are, for example, a portfolio, a project, a presentation, an oral exam or a structured written work, an essay, a report, a reflection on practical learning. The choice of assessment methods is aided by the outcome verb, i.e. the verb contained in the learning outcomes about the way in which the content of the subject has been acquired.
3. The objectivity of the evaluation is ensured by relying on the evaluation criteria. The evaluation criteria are formulated on the basis of the learning outcomes, but in much greater detail. In the case of an outcome-based curriculum, the evaluation criteria are mainly qualitative, the proportion of quantitative evaluation is decreasing (Pilli, 2009).

**Assessment** is the process of gathering information to monitor progress and make educational decisions if necessary. An assessment may include a test, but also includes methods such as

observations, interviews, behavior monitoring, etc. Assessment is a process by which information is obtained relative to some known objective or goal. Assessment is a broad term that includes testing. A test is a special form of assessment. Tests are assessments made under contrived circumstances especially so that they may be administered. In other words, all tests are assessments, but not all assessments are tests. We test at the end of a lesson or unit. We assess progress at the end of a school year through testing, and we assess verbal and quantitative skills. Whether implicit or explicit, assessment is most usefully connected to some goal or objective for which the assessment is designed. A test or assessment yields information relative to an objective or goal. In that sense, we test or assess to determine whether or not an objective or goal has been obtained. Assessment of skill attainment is rather straightforward. Either the skill exists at some acceptable level or it doesn't. Skills are readily demonstrable. Assessment of understanding is much more difficult and complex. Skills can be practiced; understandings cannot. We can assess a person's knowledge in a variety of ways, but there is always a leap, an inference that we make about what a person does in relation to what it signifies about what he knows. (Kizlik, 2012).

The purpose of assessment is to support learning and providing reliable information for studies performance. Both objectives are always conscious, but the emphasis shifts from administrative to didactic: supporting learning becomes central (Pilli, 2009).

In the most general sense, assessment is the process of making a judgement or measurement of worth of an entity (e.g., person, process, or program). Educational assessment involves gathering and evaluating data evolving from planned learning activities or programs. This form of assessment is often referred to as evaluation. Learner assessment represents a particular type of educational assessment normally conducted by teachers and designed to serve several related purposes (Brissenden and Slater, n.d.).

These purposes include:

- ✓ motivating and directing learning
- ✓ providing feedback to students on their performance
- ✓ providing feedback on instruction and/or the curriculum
- ✓ ensuring standards of progression are met

For teachers and curriculum/course designers, carefully constructed learner assessment techniques can help determine whether or not the stated goals are being achieved. According

to Brissenden and Slater (n.d.), classroom assessment can help teachers answer the following specific questions:

- ✓ To what extent are my students achieving the stated goals?
- ✓ How should I allocate class time for the current topic?
- ✓ Can I teach this topic in a more efficient or effective way?
- ✓ What parts of this course/unit are my students finding most valuable?
- ✓ How will I change this course/unit the next time I teach it?

For students, learner assessment answers a different set of questions (Brissenden and Slater, n.d.):

- ✓ Do I know what my instructor thinks is most important?
- ✓ Am I mastering the course content?
- ✓ How can I improve the way I study in this course? (Whiteneck)

Assessment is important because it drives students' learning (Brissenden and Slater, n.d.). Whether we like it or not, most students tend to focus their energies on the best or most expeditious way to pass their 'tests.' Based on this knowledge, we can use our assessment strategies to manipulate the kinds of learning that takes place. For example, assessment strategies that focus predominantly on recall of knowledge will likely promote superficial learning. On the other hand, if we choose assessment strategies that demand critical thinking or creative problem-solving, we are likely to realise a higher level of student performance or achievement. In addition, good assessment can help students become more effective self-directed learners (Angelo and Cross, 1993).

### Types and Approaches to Assessment

Numerous terms are used to describe different types and approaches to learner assessment. Although somewhat arbitrary, it is useful to use these various terms as representing dichotomous poles (McAlpine, 2002).

Formative <-----> Summative  
Informal <-----> Formal  
Continuous <-----> Final  
Process <-----> Product  
Divergent <-----> Convergent

### Formative vs. Summative Assessment

Formative assessment is designed to assist the learning process by providing feedback to the learner, which can be used to identify strengths and weakness and hence improve future performance. Formative assessment is most appropriate where the results are to be used internally by those involved in the learning process (students, teachers, curriculum developers). Summative assessment is used primarily to make decisions for grading or determine readiness for progression. Typically summative assessment occurs at the end of an educational activity and is designed to judge the learner's overall performance. In addition to providing the basis for grade assignment, summative assessment is used to communicate students' abilities to external stakeholders, e.g., administrators and employers (McAlpine, 2002) .

### Informal vs. Formal Assessment

With informal assessment, the judgments are integrated with other tasks, e.g., lecturer feedback on the answer to a question or preceptor feedback provided while performing a bedside procedure. Informal assessment is most often used to provide formative feedback. As such, it tends to be less threatening and thus less stressful to the student. However, informal feedback is prone to high subjectivity or bias (McAlpine, 2002) .

Formal assessment occurs when students are aware that the task that they are doing is for assessment purposes, e.g., a written examination. Most formal assessments also are summative in nature and thus tend to have greater motivation impact and are associated with increased stress. Given their role in decision-making, formal assessments should be held to higher standards of reliability and validity than informal assessments (McAlpine, 2002).

### Continuous vs. Final Assessment

Continuous assessment occurs throughout a learning experience (intermittent is probably a more realistic term). Continuous assessment is most appropriate when student and/or instructor knowledge of progress or achievement is needed to determine the subsequent progression or sequence of activities. Continuous assessment provides both students and teachers with the information needed to improve teaching and learning in the process. Obviously, continuous assessment involves increased effort for both teacher and students (McAlpine, 2002).

**Final (or terminal) assessment** is that which takes place only at the end of a learning activity. It is most appropriate when learning can only be assessed as a complete whole rather than as

constituent parts. Typically, final assessment is used for summative decision-making. Obviously, due to its timing, final assessment cannot be used for formative purposes (McAlpine, 2002).

### Process vs. Product Assessment

Process assessment focuses on the steps or procedures underlying a particular ability or task, i.e., the cognitive steps in performing a mathematical operation or the procedure involved in analyzing a blood sample. Because it provides more detailed information, process assessment is most useful when a student is learning a new skill and for providing formative feedback to assist in improving performances (McAlpine, 2002).

Product assessment focuses on evaluating the result or outcome of a process. Using the above examples, we would focus on the answer to the maths computation or the accuracy of the blood test results. Product assessment is most appropriate for documenting proficiency or competency in a given skill, i.e., for summative purposes. In general, product assessments are easier to create than product assessments, requiring only a specification of the attributes of the final product.

### Divergent vs. Convergent Assessment

Divergent assessments are those for which a range of answers or solutions might be considered correct. Examples include essay tests, and solutions to the typical types of indeterminate problems posed in PBL. Divergent assessments tend to be more authentic and most appropriate in evaluating higher cognitive skills. However, these types of assessment are often time consuming to evaluate and the resulting judgments often exhibit poor reliability.

A convergent assessment has only one correct response (per item). Objective test items are the best example and demonstrate the value of this approach in assessing knowledge. Obviously, convergent assessments are easier to evaluate or score than divergent assessments. Unfortunately, this “ease of use” often leads to their widespread application of this approach even when contrary to good assessment practices. Specifically, the familiarity and ease with which convergent assessment tools can be applied leads to two common evaluation fallacies: the Fallacy of False Quantification (the tendency to focus on what’s easiest to measure) and the Law of the Instrument Fallacy (moulding the evaluation problem to fit the tools (McAlpine, 2002)).

Based on the above discussion, grading could be considered a component of assessment, i.e., a formal, summative, final and product-oriented judgement of the overall quality of worth of a student's performance or achievement in a particular educational activity,

e.g., a course. Generally, grading also employs a comparative standard of measurement and sets up a competitive relationship between those receiving the grades (Whiteneck).

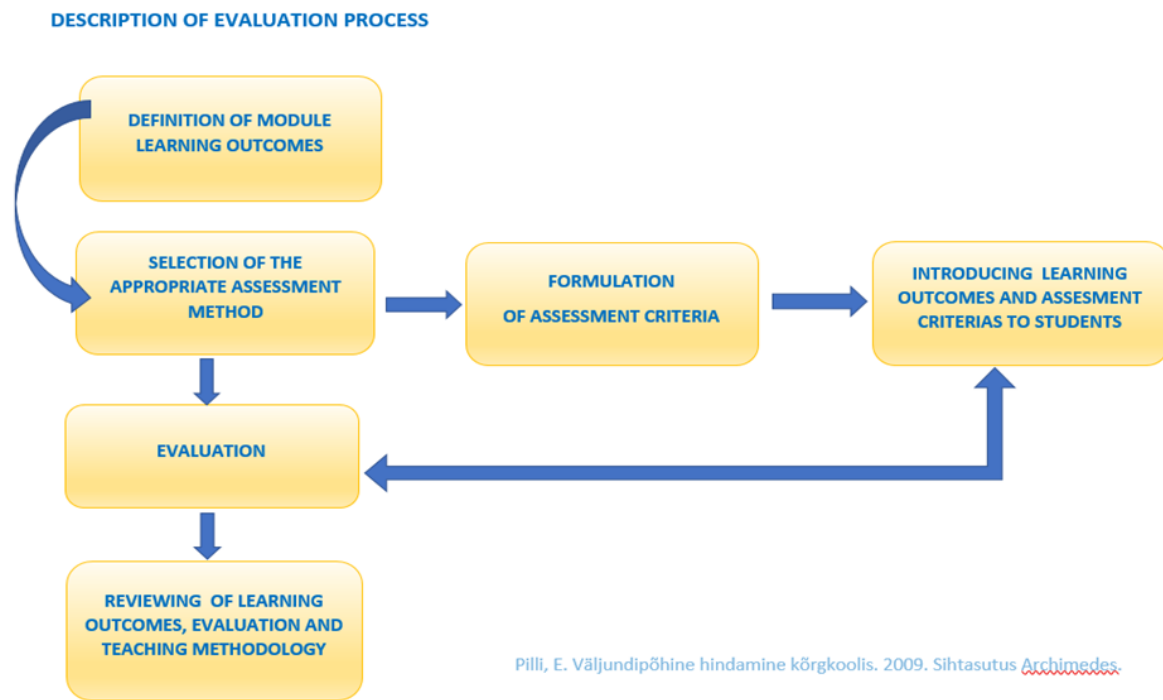


Figure 10. Description of evaluation process.

When describing the evaluation process as an evaluation of student achievement, evaluation at different levels needs to be considered. After completing the entire curriculum, the achievement of its objectives is generally assessed by the final exam.

**Example**

Table 11. Curriculum “Prison Guard” (Estonia).

Title of Module				Scope of Module
FINAL EXAM				1 ECVET
Objective: to assess the application of the student's professional knowledge and skills in work situations.				
Prerequisite for passing the final exam: A student who has passed all the basic study modules and the compulsory elective study modules is allowed for the final exam.				
Learning outcome Student:	Evaluation criteria Student:	Content (topics)	Assessment methods and assessment criteria	Teaching and learning method
1. Demonstrates the knowledge	1. Demonstrates knowledge of	1.1 Final examination	Legal analysis of the situation	- consultation in areas related to

<p>and skills required for the work of a Class II guard.</p>	<p>legislation and human rights law governing imprisonment and prison service;  2. Use the armament, special equipment and restraint of the prison as required;  3. Demonstrates the ability to perform surveillance activities.</p>	<p>(1 ECVET, L-8, P-4, I-14)  - legislation on imprisonment;  - use of coercion;  - use of telescopic rod, gas and handcuffs;  - carrying out surveillance activities.</p>	<p>Threshold criteria (Grade „3“)  -finds any clear legal issues in the case description;  - finds the legal bases governing the legal problem;  - associates the vital facts described in the case with a rule of law and draws a legitimate conclusion;  - the use of the term is correct.  Simulation  Description: resolving the conflict and providing first aid to the victim:  Cell task - solving a simulated surveillance event.  The following activities are covered: escorting a convict;  searching, opening the door; the use of physical force and / or weapons appropriate to the situation; use of handcuffs or other restraint;  performing other surveillance activities; first aid).  Threshold criteria (Grade „3“)  perform the duties of a Class II guard in a limited way in typical situations, deficiencies and uncertainties in exceptional situations.</p>	<p>the content of the modules;  - solving simulated events in the fields of law, surveillance and prison armaments, special techniques and the use of restraining measures;  - trial exam.</p>
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			The performance meets the conditions of the grade “3” given in Annex 1 of the Implementation plan.	
Independent work	The student prepares for the final exam by repeating what has been learned in the basic study modules, including analyzing the prepared study cases and training in practical performance.			
Formation of the final exam grade	The final exam is assessed differently. The grade of the final exam is formed on the basis of the analysis of the situation, the occurrence of the simulated coercion event and the surveillance event. All parts have equal weight in the formation of the grade.			

At the lower level, which is the level of the module, the achievement of the objectives of the module through the learning outcomes is evaluated on the basis of assessment criteria, using one or more assessment methods.

### Example

Table 12. Curriculum: Emergency Response and Crisis Management in Penitentiary Institutions (Turkey)

MODULE NO	Title of Module	Scope of Module
1	Basis of Emergencies and Crisis management	Total: 17 academic hours (0,7 ECVET) Contact learning: 8 ac/h Practical: 5 ac/h Independent work: 4 ac/h
<b>Objective of the Module: The student who completes the module will have basic knowledge about Emergency, Crisis Management, Emergency Response and the skills to analyse specific situations.</b>		
<b>Targeted learning outcome Student:</b>	<b>Evaluation criteria: Student:</b>	<b>Assessment methods and Assessment criteria</b>
1. Explains the basics of Emergency and Crisis Management according to legal regulations.	Lists crisis and emergency response methods in accordance with legal regulations.	<b>1. Written multiple-choice TEST</b> (The test consists from 30 questions) Threshold criteria: (not less then 21 out of 30 questions must be answered correctly)  (For assessing learning outcomes: <b>1, 2, 3</b> )
2. Defines an event as a possible emergency.	Chooses safe methods within the framework of legal crisis situations.	
3. Explains the purpose of Intervention in Emergency Situations.	Describe the main features/signs of the emergency situations  Lists common crises and emergencies in prisons.	



<p>4. Analyzes the emergency situation, applies the intervention methods.</p>	<p>Explains the purpose of correct intervention in Crisis and Emergency Situations.</p> <p>Defines the importance of correct intervention in Crisis and Emergency Situations.</p> <p>Defines which situations will require urgent intervention</p> <p>Lists the advantages of intervening in crisis and emergency situations with timely and correct methods.</p> <p>Explains which intervention methods will solve the event in crisis and emergency situations.</p> <p>Solves the incident in accordance with the legislation in crisis and emergency situations.</p>	<p><b>2. Case solving</b> (Description: the Analyses of Specific Emergency Situation based on pre-recorded video)</p> <p><b>Threshold criteria:</b></p> <ul style="list-style-type: none"> <li>- Based on the "Prison Emergency Resolution Plan";</li> <li>- Solves the task in a way that ensures the safety of life and health in a real situation and in accordance with the legislation.</li> </ul> <p>(For assessing learning outcome: <b>4</b>)</p>
Content (topic)	Teaching and learning methods	Scope
<ol style="list-style-type: none"> <li>1. Regulatory Dimensions of Crises and Emergencies and Intervention</li> <li>2. Common crises and emergency situations in prison</li> <li>3. Appropriate Intervention in Crisis and Emergency Situations</li> <li>4. Aims of Appropriate Intervention in Crisis and Emergency Situations</li> <li>5. Prison Emergency Resolution Plan</li> </ol>	<p>Lecture Video Class Practical Question answer Case Examples Role Play</p>	<p>Per topic: C- 1,5 ac/h P- 1 ac/h I -0,8 ac/h</p>
<p>Mandatory sources and references:</p> <ol style="list-style-type: none"> <li>1. Prison Emergency Resolution Plan</li> <li>2. E- course in Moodle, 2021, "Kuruma Kabul Dirimi Eđitimi" Available at: <a href="https://cteuzem.adalet.gov.tr/course/view.php?id=173">https://cteuzem.adalet.gov.tr/course/view.php?id=173</a> [Accessed on 18.11.2021].</li> <li>3. Lecturer's provided materials.</li> </ol> <p>Recommended sources and references:</p>		

Prison in Crises: Crisis recovery, looking to the future. Available at <https://www.penalreform.org/global-prison-trends-2021/special-focus-2021-prisons-in-crises/crisis-recovery-looking-to-the-future/> [Accessed on 18.12.2021].

The module is assessed non- differentially, and assessment of the module is based on the **Written multiple-choice test** and the **Case solving**.

Formulating evaluation criteria is essential to take into account some principles. The objective of the module is specified by the learning outcomes of the module. Learning outcomes, in turn, are extended by evaluation criteria. Evaluation criteria that expand and specify the content of the learning outcomes play an important role in evaluating the achievement of learning outcomes. Evaluation criteria should correspond to the learning outcomes of the module and the objective of the module. In other words, clarifying the learning outcomes with evaluation criteria helps to better understand the objective of the module and to choose the most appropriate assessment method for assessing the achievement of learning outcomes. Evaluation criteria have to be measurable, and it is recommended to use measurable verbs to formulate evaluation criteria (See Bloom's taxonomy)

**Some recommendations:**

- ✓ The appropriate evaluation criterion answers the question „how“
- ✓ The properly formulated evaluation criterion is measurable
- ✓ One outcome should be specified by 2-3 evaluation criteria
- ✓ The formulation of the criterion has to be specific and objective

**Example**

Table 13. Curriculum: Prison Guard (Estonia), Module: Carrying out of surveillance activity

Learning outcome	Evaluation criteria	Assessment methods and assessment criteria
uses the communication equipment of the prison service to transmit appropriate information	<ol style="list-style-type: none"> <li>1. names the communication equipment used in the prison service and describe the working principles of the means of communications</li> <li>2. demonstrates the purposeful use of communication equipment</li> </ol>	<p><b>Written multiple-choice test</b> /demonstrates the knowledge acquired in the lectures about the communication equipment/. There are 10 questions in the test.</p> <p><b>Threshold criteria:</b> At least 7 questions have been answered correctly</p>

		<p><b>Demonstration:</b> the student conducts a communication session using the equipment of communication used in the prison service</p> <p><b>Threshold criteria:</b> conveys the necessary message to the addressee in a comprehensible manner by means of communication</p>
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#### 14. METHOD OF ASSESSMENT

In outcome based learning, learning outcomes (knowledge, skills and competences) to be achieved by learners are at the focal point of the learning process. All educational activities and resources need to be related to the intended learning outcomes of a learning module or course, in order to assist the learners in successfully achieving the intended learning outcomes at the end of the learning experience. Outcome based assessment means that the assessment process must be aligned with the learning outcomes. This means that it should support the learners in their progress (formative assessment) and validate the achievement of the intended learning outcomes at the end of the process (summative assessment). It also means that the assessment process should be adapted depending on the kind of outcomes that it is aimed to appraise (Crespo R. M. *et al.*, 2010).

The choice of assessment method is important and also challenging for the teacher. The selected method should make it possible to assess the intended learning outcomes. Theoretical principles of the outcome-based curriculum don't assume double assessment of the same outcome. It is obliged to assess one outcome only once.

From the point of view of preparing for assessment, it is even recommended that the teaching methods of the training are similar or identical to the assessment method - so that the learners practice their competencies in a necessary way and in the necessary context.

The quality of the content of the assessment is ensured by the authenticity of the assessment. Authenticity in assessment means that the assessment task is as close as possible to a real-life situation. When choosing an assessment method, it is important that it imitates as closely as possible the situation or activity in which the learner uses what he/she learned from the training later.

The following criteria should be considered when selecting an evaluation method:

The chosen assessment method has to be purposeful, i.e. it has to allow us to evaluate the learning outcomes of the relative subject. Not only substantive compatibility of the evaluation method with the content of the study is important, but also how this content should be acquired in terms of learning outcomes.

Assessment methods must allow for the assessment of all learning outcomes, but for each learning outcome separately there is no need to choose an assessment method.

In general, it is recommended that it is better to use two or three major methods per module rather than one very large one or many different small assessment methods. Mention of assessment methods should also be avoided "Exam" and "assessment" because they refer to one assessment and provide almost no information on how the evaluation actually takes place.

When choosing an assessment method, its feasibility and reasonable time are important. Compliance with this criterion should not imply misrepresentation of objectivity. There are complex cases where the teacher teaches a subject that requires a wide range of knowledge and skills for a large group of students, the learning outcomes of the subject require a number of more complex assessment methods, a considerable amount of time required must be taken into account in the assessment. Self-assessment and peer assessment can help to solve the time problem (Pilli, E. 2009).

### Example

Table 14. Curriculum: Prison guard (Estonia), Module: *Carrying out of surveillance activity*

Learning outcome	Evaluation criteria	Assessment method and assessment criteria
behaves as the primary responder and as a solver in emergency situation	selects as primary responder to resolve the emergency situations safe tactics that are in accordance with the legislation provided for in	<p><b>Demonstration</b> of ability to use direct coercion against the aggressive and dangerous prisoner.</p> <p><b>Threshold criteria:</b></p> <ul style="list-style-type: none"> <li>- based on the standard of application of skills for use direct coercion</li> <li>- solves the task in a way which ensures real situation to safety life and health.</li> </ul> <p><b>Demonstration:</b> Response to fire in simulated prison environment</p> <p><b>Threshold criteria:</b> uses primary fire extinguishers correctly achieves control over the fire</p>

Table 15. Curriculum: Emergency Response and Crisis Management In Penitentiary Institutions (Turkey). Module: Emergency crisis situations in penal institutions

Learning outcome	Evaluation criteria	Assessment method and assessment criteria
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Explains events of a fire	Describes common causes of a fire Lists the actions to be taken in case of a fire	<b>Essay</b> (overview of issues regarding events of fire)  <b>Threshold criteria:</b> - essential causes of a fire are described; - main steps to do in the case of a fire are presented; - the written paper is correct in form and content.
1. Explains escape and escape attempts in Penitentiary Institutions.	1. Explains the reasons for escape and escape attempts. 2. Lists escape and escape attempt methods. 3. Lists the measures to be taken against escape events.	<b>ANALYSIS (CASE STUDY)</b> (Based on pre-recorded video)  <b>Threshold criteria:</b> - the analysis is based on a case solving model.

Group work may be used as an assessment method. It increases an opportunity to develop the student's competence to work together and work towards common objectives through various group work.

Table 16. Curriculum: *Emergency Response And Crisis Management In Penitentiary Institutions (Turkey)*. Module: *Emergency crisis situations in penal institutions*.

Learning outcomes	Evaluation criteria	Assessment method assessment criteria
Defines Collective Fight and Resistance (riot) events.	-Identifies collective fighting situations of resistance and explains intervention. -Defines the legal basis for the use of force in collective fighting in the situations of resistance.	<b>Role Play (as a teamwork)</b> solving the situation of resistance in the event of collective fighting)  <b>Threshold criteria:</b> - have control over fighting and resistance -use force proportionally in accordance with the provisions of the law - solve the case in a way that does not endanger anyone's life or health

## 15. ASSESSMENT CRITERIA

**Assessment criterion** describes the level of competences that the learner must demonstrate through the assessment method.

Once the assessment methods have been selected, they need to be accompanied by assessment criteria. The assessment of learning outcomes requires first the method by which this is done and then the criteria to be met by this method. (Pilli, E. 2009)

The purpose of assessment is to support learning and to provide reliable information on students' performance in completing their studies.

Assessment has two functions: **summative and formative**.

In the case of a **summative assessment**, the retroactive assessment shall be made, showing how the learning process has been successful and whether and how well learning outcomes have been acquired. The summative assessment is either differentiated or undifferentiated. The result of the differentiated assessment is expressed in the form of a letter or a number, stating whether and when the learning outcomes are well acquired and the subject is not completed (Pilli, E. 2009).

Undifferentiated assessment states that learning outcomes are acquired, and the subject is completed. In both cases the lecturer guarantees that the learning outcomes are acquired at the time of the assessment (Pilli, E. 2009).

The limitation of the assessment summary function is that of the learner it often does not provide substantive or more precise feedback on it about what he succeeded in doing and why his result was just that. Even if he knows the assessment criteria, it may be unclear which parts succeeded and which did not. Therefore, a second, formative function of assessment is needed. Formative comments may also accompany the summative assessment, showing what has been successful and which can be done even better. In terms of learning, it is important that formative assessment takes place already in the learning process so that learners can improve their work before summative assessment (Pilli, E. 2009).

**Formative assessment**, or feedback is longer than assessment, usually a verbal form given to the learner about the acquisition of learning outcomes during the learning process. The peculiarity of assessment is that the learner usually can improve his/her work based on the feedback. Even if the work cannot be improved, formative comments are helpful, whether presented separately or together with summative assessment (Pilli, E. 2009).

Both summative and formative assessment are based on assessment criteria. Jones and Tanner (2006) suggest that the role of formative assessment is particularly important for middle- and lower-performing learners, who have a tendency to consider as a reason for their low capacity for their poor learning abilities rather than the learning process. There is also an argument for lifelong learning in favor of formative assessment: scores are rarely given in a lifelong process, but people need constant supportive guidance on how to achieve better results (Pilli, E. 2009). Assessment criteria are needed to: the student understands before starting work what quality is expected of him/her in an assessment method and is able to analyse his/her work later.

- ✓ the teacher has an objective basis for assessment that reduces the subjectivity of the assessment
- ✓ In the case of peer review, students would benefit from a basis for mutual assessment
- ✓ there would be a clear link between more specific assessment criteria and more general learning outcomes to analyse whether all learning outcomes have been acquired and demonstrated through assessment
- ✓ steer the learner in the desired direction (Pilli, E. 2009).

*Example of formal assessment.* The purpose of learning is to acquire the legal bases for the use of physical force.

1. First, the learner receives feedback when passing the self- control test
2. Resolving a case, the learner receives feedback from the lecturer
3. Then the case is resolved in groups, and feedback is received from other group mates as well as the lecturer

There are two types of assessment criteria: **threshold and grading criteria**. In the case of threshold criteria, this is an undifferentiated assessment, in the case of grading criteria by differentiated assessment (so-called exam). The lower level of grading criterion is also a threshold criterion. In both cases, the threshold criteria must be substantially compatible with the level described in the learning outcomes (Pilli, E. 2009).

The threshold criterion defines when the learning outcomes can be considered to have been achieved. If the learning outcomes are described at a minimum level, which can also be called a basic level, the lowest possible level at which the learning outcomes can be considered as

acquired, described through the threshold criteria. The threshold criterion does not have to correlate with the grades of the differentiated assessment, but it must overlap with the level of learning outcomes (Pilli, E. 2009).

### Example

Table 17. The undifferentiated assessment. Curriculum: Emergency Response And Crisis Management In Penitentiary Institutions (Turkey). Module: Basis of Emergencies and Crisis management.

Learning outcomes	Evaluation criteria	Assessment method and criteria
<p>Explains the basics of Emergency and Crisis Management according to legal regulations.</p> <p>Defines an event as a possible emergency.</p> <p>Explains the purpose of Intervention in Emergency Situations.</p>	<p>1. Lists crisis and emergency response methods in accordance with legal regulations.</p> <p>2. Chooses safe methods within the framework of legal crisis situations.</p> <p>3. Describe the main features/signs of the emergency situations</p> <p>4. Lists possible crises and emergencies in prisons.</p> <p>5. Explains the purpose of correct intervention in Crisis and Emergency Situations.</p> <p>6. Defines the importance of correct intervention in Crisis and Emergency Situations.</p> <p>7. Defines which situations will require urgent intervention</p> <p>8. Lists the advantages of intervening in crisis and emergency situations with timely and correct methods.</p>	<p><b>Multiple-choice test (for assessing outcomes 1,2,3)</b> The test consists of 30 questions.</p> <p>Threshold criterion: not less than 21 out of 30 questions must be answered correctly</p>

Table 18. The undifferentiated assessment. Curriculum: Emergency Response And Crisis Management In Penitentiary Institutions (Turkey). Module: Emergency crisis situations in penal institutions

Learning outcome	Evaluation criteria	Assessment method and assessment criteria



Shows extinguishing a fire	<ol style="list-style-type: none"> <li>1. Demonstrates fire extinguishing using firefighting equipment.</li> <li>2. Operate with fire-fighting equipment in accordance with safety requirements.</li> </ol>	<p><b>Demonstration</b> (Firefighting in a simulated prison environment)</p> <p><b>Threshold criteria:</b></p> <ul style="list-style-type: none"> <li>- uses fire extinguishers correctly</li> <li>- takes the fire under control</li> </ul>
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Table 19. The differentiated assessment (exam). Curriculum: Prison Guard (Estonia). Module: Use of self-defence and weapons and first aid.

<p><b>Assessment (exam) method:</b> <b>Demonstration</b> student demonstrates</p> <ul style="list-style-type: none"> <li>hand strokes (three different)</li> <li>kicks (two different)</li> <li>controls (three different ones)</li> <li>removal techniques (five different)</li> <li>release from grips (five different)</li> <li>repels a cold weapon attack (three different ones).</li> </ul>				
Learning outcome	Evaluation criteria	Grading criteria		
<p><b>uses physical force lawfully</b></p>	<ul style="list-style-type: none"> <li>- performs various hand and foot strokes when applying physical force;</li> <li>- skillfully repels hand and foot strikes in an offensive situation;</li> <li>- demonstrates different techniques for taking down an opponent and gets rid of different grips on the opponent;</li> <li>- demonstrates removal techniques in pair</li> <li>- skillfully repels a cold weapon attack;</li> </ul>	<p><b>Grade 5</b></p> <p>Performs the removal technique or the release from the grip quickly (five different) in a fast and smooth manner, technically correct and with sufficient force</p> <p>Repels the attack with the right timing and demonstrates five different removal techniques</p> <p>In pairs, perform the removal technique at a leisurely pace (two different)</p>	<p><b>Grade 4</b></p> <p>Performs the removal technique or the release from the grip at a calm pace, technically correct and with sufficient force (five different ones)</p> <p>Repels the attack with the right timing and demonstrates four different removal techniques</p> <p>In pairs, perform the removal technique at a leisurely pace (two different)</p>	<p><b>Grade 3 (Threshold criterion)</b></p> <p>Performs the removal technique or the release from the grip at a leisurely pace (five different)</p> <p>Repels attacks with the right timing and demonstrates three different removal techniques;</p> <p>In pairs, perform the removal technique at a leisurely pace (two different)</p>

In the case of planning the selection of assessment methods and assessment criteria, it is not possible to tell which one to think about beforehand. They need to be addressed at the same time, based on learning outcomes. What is certain, however, is that the assessment method is not sufficient without assessment criteria.

The assessment criteria must follow the following principles:

- ✓ The assessment criteria must be defined for each used assessment method.
- ✓ If a grading assessment is used (i.e, grades), the grading criteria must also be written down.
- ✓ It is good to start by defining the assessment criteria at the threshold, i.e, the level of acquisition learning outcomes. If assessment methods are only threshold-based, no grading criteria are required.
- ✓ The assessment criteria should be mainly substantive and qualitative.
- ✓ All assessment criteria must be met at least at the threshold level so the assessment results can be considered positive (Pilli, E. 2009).

The following aspects do not qualify as evaluation criteria:

#### Participation in lectures, seminars, practical work

Participation does not prove enough that learning outcomes have been acquired. However, some participation can be used as a precondition for assessment.

#### Only formal criteria (length of text, use and citation of sources, number of examples)

Based on them, it is not possible to decide on the substantive acquisition of learning outcomes. Formal criteria should only be used if they affect the result (eg the number of sources in the paper or the length of the paper), otherwise the formal criteria should be written in the paper. If they are in the assessment criteria, they will also affect the result of the assessment.

#### A description of the level below the learning outcome

Learning outcomes are described at a minimum level. Therefore, the performance below the learning outcome cannot be a positive performance.

#### Timely submission of work

If the work is not submitted on time for reasonable explanation, the performance of this assessment method cannot be assessed as positive (Pilli, E. 2009).

The assessment criteria can be both threshold and grading criteria, depending on the assessment method. In the case of undifferentiated assessment, threshold criteria shall be formulated for each assessment method, above which the assessment method has been performed.

If an assessment method is carried out in a group work, this must also be reflected in the assessment criteria. Assessing group work is more difficult than assessing individual work, as not all group members may have the same contribution. At the same time, experience in preparing for assessment in a group is important, as many tasks in the later working life have to be completed in a group. Therefore, the assessment of group work should not be abandoned, but its criteria should be well thought out.

The following options may be considered when defining the assessment criteria for a team-based assessment method:

- ✓ have everyone do something visible in writing or otherwise during or before the group work and define the assessment criteria for this work.
- ✓ If the contribution of the members of the group cannot be distinguished, the group as a whole and all its members must be evaluated with the same score.
- ✓ divide the tasks in a group so that everyone has a role to play that can be assessed.
- ✓ have group members assess their own and each other's contribution to the final result. These assessment criteria could be more verbal and formative, but their content should similarly be derived from learning outcomes.
- ✓ this is the best way to assess general competencies, such as teamwork and self-expression skills.
- ✓ assess group work in an undifferentiated way (Pilli, E. 2009).

#### [Introduction to students learning outcomes and assessment method and criteria.](#)

Students are introduced to learning outcomes and assessment at the beginning of the training. The clearer the description of the assessment, the less misunderstanding there is and the better learning outcomes can be expected.

## Assessment

As previously said, assessment can be done in a formative way during the learning process and in a summative way during or at the end of it. Comments can also be added to the summative assessment.

Formative and summative assessment carry different messages for the learner: in formative assessment, mistakes are valued as an opportunity to learn, in the case of summative assessment, the learner is expected to make as few mistakes as possible. From the point of view of supporting learning, it is important that the learner receives enough formative feedback: only in this way will he/she get good results in the summative assessment and finally in the learning. The assessment process needs to be continuously improved (Pilli, E. 2009).

Acquiring self-assessment and peer assessment skills is important in the context of lifelong learning, supporting the development of an analytical and self-directed learner.

Self-assessment and peer assessment can be used as both formative and summative assessments. In the formative assessment, students give each other feedback on ongoing work, how to finish or further develop their work. In the case of summative assessment, the use of self – assessment and peer assessment provides an additional dimension in the formation of the result and in achieving greater objectivity. Self- and peer assessment can be applied in classroom learning, independent work and in the web environment. Self-assessment and peer assessment of student work can be successfully applied to a wide range of assessment methods: essay, presentation, portfolio, case study, demonstration.

Self-assessment is the involvement of learners in the decisions they make about their learning, especially in the assessment of their own achievements and learning outcomes. Self-assessment is most often used in formative assessment to reinforce reflection on one's own learning process and outcomes (Duchy *et al*, 1999). Self-assessment requires students to have honest and critical self-reflection on their work.

It is wise to start the acquisition of the skills of self-assessment through short, well-structured tasks in which specific questions are answered:

- ✓ What are the strengths of my work (presentation, portfolio, etc.)?
- ✓ What am I satisfied with?
- ✓ What are the weak sides of my work?
- ✓ What makes this work better than the previous one?
- ✓ What can I pay more attention to next time?

Oral forms (pair interview, discussion) can also be used for self-assessment. It is very important how self-assessment tasks are integrated into the context of the whole module and curriculum. In the case of peer reviewing, students or groups of students assess the work of their peers. Peer assessment can consist of both giving feedback and making assessments. Assessing the work of fellow students allows students to learn from each other's strengths and weaknesses. Students value assessing the work of fellow students' as a collaborative and supportive tool that provides an opportunity to see from different perspectives and to develop empathy and trust in others (Gale *et al*, 2002).

There are several options for peer assessment:

- ✓ assessment of one or two peers,
- ✓ assessment of all peers,
- ✓ assessment of one's peers in group work,
- ✓ ranking all peer-reviewed works (presentations, demonstration) based on one or more criteria,
- ✓ naming the best job, etc.

All of these opportunities can also be used in e-learning.

In the case of peer-assessment, it is important to learn and practice it in advance and to develop clear criteria that are commonly understood by the participants in the assessment process.

In the implementation of the peer assessment, the teacher should consider the following:

- ✓ decide on which tasks students could evaluate each other's work;
- ✓ guide and clarify the principles (explain the basic principles of giving feedback, point out what should be taken into account when giving feedback);
- ✓ agree on clear criteria;
- ✓ start with simpler tasks (less valuable aspects);
- ✓ Enabling everyone to participate in the process - keeping all parties informed of the principles and process, everyone knows:
  - what the criteria are;
  - how work is shared to provide feedback;
  - what the deadlines are;
  - everyone knows how to be notified when failures occur;

- everyone knows what the sanctions are when someone breaks the rules.
- ✓ Do not make the process complicated (as simple and clear as possible).

Similar techniques can be applied to organize self- and peer assessment and to acquire skills. When a lecturer starts using self- and peer assessment in the learning process, then it is necessary to introduce and practice its nature to the students (preparatory tasks), formulate specific and clear guidelines and discuss the assessment criteria. It is possible to use a checklist for peer assessment.

**Example**

**Essay assessment checklist for students** (Race *et al*, 2005)

Essay Theme:

Name of evaluator:

Table 20. Essay assessment checklist for students.

What to monitor and evaluate?	Maximum score (points)	Score (points)	Comments (points in each field have to be justified)
The author's introduction leads to the Topic and opens the main problem.	5		
The essay analyses the problems posed.	10		
Essay is good to read, and the author's thoughts are understandable.	10		
The essay reflects the author's reading and research work.	10		
The sources are properly selected	10		
The sources are referenced correctly	5		
The arguments are sufficiently justified	6		
The essay presents the author's own views.	10		
The author's conclusions are logical and result from the previous discussion.	5		
The author's use of language is stylish and correct.	5		

The length of the essay is in line with the agreed requirements.	4		
<b>Total score (points)</b>	<b>80</b>		

## 16. SEQUENCE AND SCOPE

Scope and sequence are interrelated concepts that refer to the overall organisation of the curriculum in order to ensure its coherence and continuity. Scope refers to the breadth and depth of content and skills to be covered. Sequence refers to how these skills and content are ordered and presented to learners over time (International Bureau of Education).

A scope and sequence is a summary of what is to be taught, the sequence in which it will be taught. Scope and sequences are flexible and fluid; they provide the ideas and an overview of the concepts that will be covered through contact learning, practical work, independent work and assessment in a module within a curriculum.

A properly developed curriculum based on defined scope and concrete sequence.

Sequence – the specific order, repetition and arrangement of curriculum outcomes that promotes the meaningful transfer of learning from one concept to another Sequencing is important in planning for effective teaching and learning that requires professional knowledge of:

- ✓ students and how they learn
- ✓ curriculum content and how to teach it (NSW Government website - Education).

In other words, the sequence is the order in which the information is presented to the student. How to sequence the curriculum depends on the development of the students cognitively. There are four common sequencing approaches in curriculum design,

- ✓ **simple-to-complex**, the curriculum is designed in such a way that simpler concepts are presented before more complex ones
- ✓ **prerequisite learning**, prerequisite learning is a form of sequencing in which certain knowledge must come before more advanced knowledge. It is similar to simple-to-complex learning but the sequencing of the prerequisite knowledge

does not matter as long as all of it is addressed before the more complex knowledge

- ✓ **whole-to-part learning**, whole-to-part learning provides students with an overview of the subject before going into specific details
- ✓ **chronological learning** when the curriculum is sequenced by the order the concepts happened historically

The type of sequencing to use depends on the objective of the curriculum. Most subjects can be taught using any of these forms of sequencing. It is the needs of the students that determine what may be the most appropriate option (Educational Research Techniques).

As usual the modules of the curriculum follow each other logically. The first module is usually the basic module, the passage of which is necessary to acquire the content of the following modules. At the same time, modules can be independent and separately teachable.

**Example**

Table 21. An overview of the sequence of modules. (Curriculum: Professional Intervention Techniques and Tactics in Penitentiary Institutions).

TITLE OF MODULE	OBJECTIVE OF MODULE	EXPLANATION HOW MODULES FOLLOWING TO EACH OTHER	
Proportional Force Usage Principles, National and International Legal Bases	Upon completing the module, the student will have knowledge of the principles of proportional use of force and their national and international legal bases	Theoretical learning, provides a basis, including legal bases, for future intervention	THEORETICAL
Events requiring proportionate use of force and approaching them	Upon completing the module, the student knows the possible events that may require the use of proportional force and the applicable approaches to these events	Theoretical learning provides knowledge of possible events that may require the use of physical force	THEORETICAL



Dealing with Difficult Behaviors and Approaching Special Situations	Upon completing the module, the student will have the knowledge and skills to choose the right way to solve difficult situations	In addition to providing knowledge, a suitable way is chosen to solve a difficult situation	THEORETICAL + PRACTICAL
Communication styles at different stages of the event requiring intervention	Upon completing the module, the student knows communication styles and applies these styles at different stages of the response	The use of appropriate communication styles when solving events, theory is applied in practice	THEORETICAL + PRACTICAL
Use of Proportional Force Techniques and Tactics	Upon completing the module, the student applies the appropriate techniques and tactics to use in force to solve the events	The use of what has been learned before to solve concrete events which require the use of force	PRACTICAL

The title of the training has a clear link to the scope of the study and the structure of the study. For example, the title of training “Prison Guard” it is understandable that training cannot be short. If the title of training is “Professional Intervention Techniques and Tactics in a Penitentiary Institution” it is logical to assume that the training should have the practical part, and ideally this part could be longer than theoretical.

In in-service training, the scope is usually calculated in academic hours, i.e. one hour is 45 minutes.

The curriculum always takes into account the working hours of the learner, not the teacher. In the case of in-service training in a vocational training institution, units for calculating the scope of a curriculum may be added in addition to the hours.

In vocational education, the scope is defined in ECVET (The European Credit System for Vocational education and training), which also corresponds to 26 hours of work by a learner in acquiring knowledge and skills (European credit system for vocational education and training).

26 hours are split as follows: 20 (22) hours are allocated for contact learning, practical work and e-learning; 6 (4) hours for independent work, i.e. about 80% and 20% respectively. The time taken to assess one student must be taken into account.

**Contact learning and practical work.** Contact learning includes training supervised by a lecturer in both physical and virtual learning environments. Contact learning is both theoretical learning and practical exercises both in the auditorium and in practical learning environments, for example classroom, complex of training cells or rooms. Within contact learning, among other things, the proportion of practical work is highlighted. From the point of view of learning, it is useful to integrate theoretical and practical learning into the most comprehensive whole possible.

**Independent work** is the independent performance by students of work and learning tasks with defined objectives, on which the lecturer provides feedback. Independent work can also be done in a virtual, or e-learning environment.

Once the intended learning outcomes have been described and the content and teaching methodology of the module have been planned, the next step is to assess how much time the learner takes to achieve each learning outcome, or assess the coherence of learning outcomes with the scope of learning. The calculation is based on how much the average learner is able to learn in a given period of time. The calculated study time is the number of hours expected to be required by an average student of a particular curriculum to a corresponding learning outcome. The calculated study time is also influenced by the student's previous experience, knowledge, skills, etc.

When calculating the scope of work of the student, it is necessary to take into account the composition of the various activities of the module, the scope of which is influenced by:

- ✓ type of module/subject (lecture, seminar, practical exercises)
- ✓ type of student activity (reading of literature, attending a lecture, written work);
- ✓ assessment method (written exam, analysis (case study), demonstration).

The amount of work done by the average student to obtain one European credit is defined as 26 estimated working hours. The average amount of work performed by a student during the entire academic year is 1560 hours (in Estonia).

When calculating the scope of the module, it is recommended to use a table where the lecturers plan the learning and assessment methods for each learning outcome and determine the estimated workload of the average student.

### Example

Table 22. Curriculum: Prison Guard (Estonia). Module: Communication with the convict and re-socialization of the prisoner.

Learning outcome	Learning methods	Assessment method	Average student' scope of workload in hours
purposefully implements different ways of communication and conflict resolution;	Lectures, seminars, group work, role plays	<b>Role play</b> Application of communication psychology in resolution of crisis situations.	<b>52 ac/h</b> (Contact learning: 38 ac/h; independent work: 14 ac/h)
understands the goals and measures for the resocialization of prisoners in prison.	Lectures, analysis (case study)	<b>Analysis (case study)</b> Based on the given case, the student: - explains the main risk a person to commit a crime; - offers suitable measures to reduce the main risk and justifies its choice	<b>26 ac/h</b> (Contact learning: 20 ac/h; independent work: 6 ac/h)
In total hours		<b>78 ac/h</b>	
In total ECVET		<b>3 ECVET</b>	

When all the learning outcomes of one module are planned accordingly, it is necessary to sum up the hours and divide them by 26 to get credit points (ECVET). Thus, the scope of the module becomes clear, but when determining the final scope, the entire curriculum must be revised considering that:

- ✓ the scope of the module would be either an integer (entire number) or  $n \times 0.5$ . To do this, it is necessary to review the methods planned within the module and the estimated workload of the student;
- ✓ the scope of the modules would give the total scope of the curriculum (vocational education (EQF 4) 30-150 ECVET, continuing education curriculum 15-60 ECVET, in

Estonia). To do this, it is necessary to review the learning outcomes (Are these too ambitious learning outcomes? Is this a minimum?).

There is never enough space in the curriculum for a student to learn everything a teacher wants to teach him or her. In real life, you have to make compromises and find a middle way between the available time and the desired results. Often, therefore, the intended learning outcomes (and also teaching and assessment) need to be reformulated, as they prove to be unattainable with the available time resources, and time for learning normally cannot be taken from anywhere.

## Reminder

*Guidelines for transferring a face to face course to online or blended learning: Based on the pilot course Admission to the Institution, Finland, 2020*

Table 23. Workload.

Approximate recommended workloads (1 ECVTS = 27 hours)	
Production of written text The figures are only for writing and do not include background reading, information retrieval, etc., which should be stipulated separately.	Reading text The figures below include reading of literature or books and include reading a text carefully: scanning the text, internalising and reviewing the information.
100 words of text = 1 hour	100 pages of easy/normal text = 20 hours
1 page = 250 words = 2.5 hours	100 pages of academic or foreign language text = 30 hours
10 pages = 2500 words = 25 hours	400 pages of domestic language book exam text = 80 hours = 3 ECTS
10 pages = 1 ECTS	266 pages of foreign language book exam text = 80 hours = 3 ECTS
30 pages = 3 ECTS	

## Example

Table 24. Curriculum: Prison guard (Estonia). The total scope of modules.

Module	Learning outcomes	Total scope
<i>Application of legal knowledge in prisons</i>	-implements the Imprisonment Act and other legislation regulating the execution of	104 ac/h (4.0 ECVT) Contact learning: Lectures: 44 ac/h

	<p>imprisonment to the extent of the duties of a Class II guard;</p> <p>-associates the basic rules of the state with the duties of a Class II guard;</p> <p>-associates and implements human rights with the duties of a Class II guard in the performance of those duties;</p> <p>- apply skills and knowledge of public service legislation to the extent of the work of a Class II guard.</p>	<p>Seminars: 36 ac/h Independent work: 24 ac/h</p>
<p><b>Use of self-defence and weapons and first aid</b></p>	<p>-perform the physical tests of a prison officer at least at a minimum level</p> <p>-uses physical force lawfully</p> <p>-uses handcuffs, telescopic button and gas spray and shields properly and efficiently, observing safety requirements;</p> <p>-Uses properly handguns allowed in prison, subject to safety requirements;</p> <p>-complies with established shooting standards</p> <p>-assess the need for first aid and apply basic life-saving first aid techniques.</p>	<p>Total scope: 234 ac/h (9.0 ECVT)</p> <p>Contact learning: Lectures: 20 ac/h Practical work: 194 ac/h</p> <p>Independent work: 20 ac/h</p>

In order to get a broader overview and a clearer understanding of the relationship between learning outcomes and scope of study, examples of in-service training programs (Estonia) are given below. The content of the selected in-service training programs is related to the curriculum taken as a model in the development of an outcome-based curriculum.

Table 25. In-service training program: "Training of first responders".

<p><b>Objective:</b></p>	<p>As a result of the training, the student will have an up-to-date knowledge of the principles of the work of prison officers who</p>
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	respond first to emergency situations in prisons and the ability to ensure the unified capacity of the team to respond primarily to emergency situations.
<b>Learning outcomes</b>	<ul style="list-style-type: none"> <li>- Associates priorities and principles for responding to an emergency</li> <li>- Uses appropriate resolution techniques and tactics in response to an emergency.</li> <li>- Justifies the choice of tactics used.</li> </ul>
<b>Content</b>	<ul style="list-style-type: none"> <li>- The nature of prison emergencies and the priorities and general principles for addressing them.</li> <li>- Group work with justification of tactics for solving specific demonstration events.</li> <li>- Practical training in the use of different solving techniques and tactics.</li> </ul>
<b>Learning and teaching methods</b>	lectures, practical training
<b>Learning environment</b>	<p>The training takes place in three different learning environments:</p> <ul style="list-style-type: none"> <li>- Classroom equipped with the necessary training tools (data projector, computer and smartboard);</li> <li>- Training hall with training equipment (wrestling mats, special equipment, service weapons and shields);</li> <li>- A study cell complex, where a prison section with special rooms (cells, guard room, equipped dayroom) has been built as realistically as possible.</li> </ul>
<b>Total scope</b>	24 ac/h (0,92 ECVET), incl. 8 ac/h in the auditorium, 16 ac/h practical training in a training hall and a study cell complex

## 17. LEARNING ENVIRONMENT

The learning environment is the combination of the mental, social and physical environment around which students develop and learn.

Learning environment refers to the diverse physical locations, contexts, and cultures in which students learn. Since students may learn in a wide variety of settings, such as outside-of-school locations and outdoor environments (Glossary of Education Reform, 2013).

The learning environment is divided into physical, emotional and intellectual.

### Physical learning environment

Classroom physical environment affects morale and student learning. The environment should match your objectives, both in terms of human interaction and lecturer instructional approach. The arrangement of seating is one major variable. Including students in creating the physical environment can enhance that environment, increase the feeling of the classroom community, and give students a sense of empowerment (Phillips, M, 2014).

The main keywords:

- ✓ modern learning center (publications, audio-visual, computers with Internet and Intranet connection for individual use), the ability to create individual and collaborative text like office or Google Docs (including support from IT experts),
- ✓ group work rooms,
- ✓ classrooms with flexible interiors (easily adaptable to different forms of study).

### Emotional learning environment

Teachers use teaching strategies that support students' social and emotional development. Students reflect on their work, use pair-shares, celebrates students' good accomplishments (Martinez, L, 2016).

The keywords:

- ✓ protection, freedom from fears, coziness
- ✓ creativity, learning-centred
- ✓ positive recognition of the pursuit of excellence and performance

### Intellectual learning environment

Each person is a holistic being with an intellectual self that needs nurturing and growth, regardless of his or her ability to read hefty books or use big words. The intellectual contributions and needs of each individual as equally vital to the learning process (Boudreau, 2012).

The keywords:

- ✓ the learner is an equal partner to the teacher
- ✓ fostering knowledge creation
- ✓ continuous consideration of new models and paradigms

The keywords for creating a [psychologically good atmosphere](#) are:

- ✓ mutual respect (manifested in the tone of voice, wording, helpfulness, etc. of the lecturer and students)
- ✓ relaxed atmosphere (both lecturers and students are allowed to make mistakes, admit, try and test their mistakes)
- ✓ clear common goals (both the lecturer and the students know why and for what purpose something is being done and are interested in achieving these goals)
- ✓ shared responsibility (lecturer is responsible for creating the environment and learning conditions, students for learning, the need for control has disappeared and been replaced by supportive activities) (Sutrop *et al*, 2017).

In current education, there are three different types of learning environments: face-to-face, online (virtual), and blended (hybrid). Each has its own specific characteristics that makes it unique.

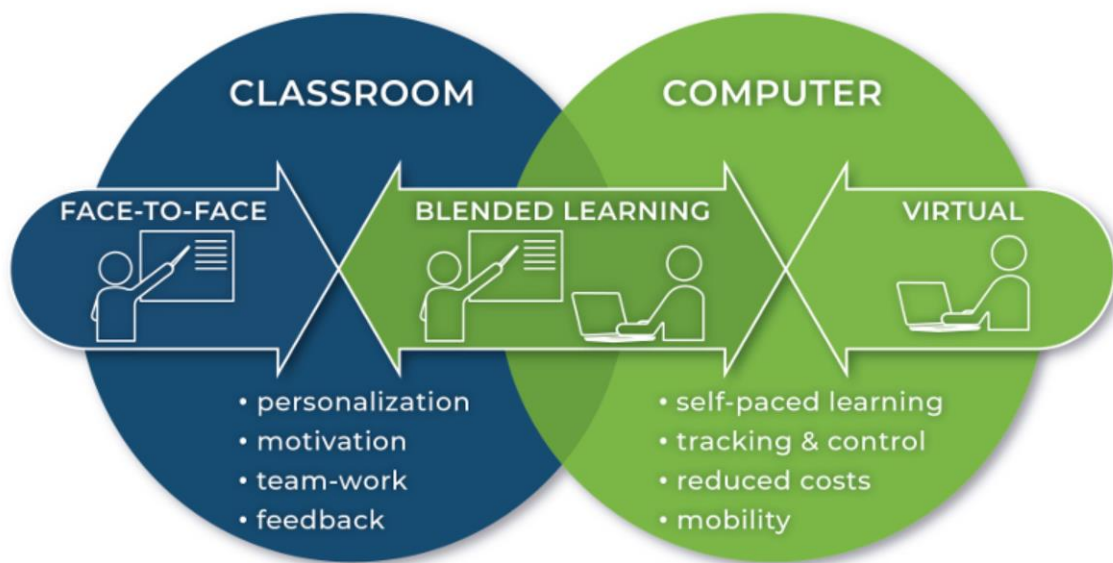


Figure 11. Learning environments.

### FACE TO FACE LEARNING ENVIRONMENT

This is where the lecturer and the student meet in a set place for a set time, for either one-on-one learning or, most commonly, in group class lessons. Face to face learning is a really effective



way to learn knowledge and skills because it often combines different ways of learning including writing, reading, discussion, presentations, projects, group work, film clips, demonstration and practice (National Youth Mental Health Foundation, 2021).

The main keywords:

- ✓ Learning only happens in classrooms
- ✓ Learning only happens at fixed times
- ✓ Mostly the lecturer - centered approach
- ✓ Get answers and feedback in real time
- ✓ Active group discussions
- ✓ Share and compare notes with classmates
- ✓ No time for individual study
- ✓ Lower use of communication technologies
- ✓ A classroom always has a front
- ✓ Flexibility can be enhanced by filling rooms with chairs as will fit and moving the tables (Oblinger, 2005).

It is suggested that teachers are creating active learning environments that place students in small work groups to solve problems, create, and discover together.

Learner-centered environment can be created (Wulsin Jr, 2013):

- ✓ Windows with views to the outside
- ✓ Natural daylight
- ✓ Robust wireless internet networks that support high-speed creation and sharing of media
- ✓ Walls prepared for presentation (blackboards, pin-up, projection)
- ✓ Low-profile electrical outlets evenly spaced around all walls
- ✓ Smooth and flat floor for easy rearranging of furniture
- ✓ Adjustable lighting for group discussion, presentation, and video recording.

The Advantages of Face to Face Learning in the Classroom

- ✓ Students will be able to concentrate harder on your learning because there'll be less distraction than if you were at home
- ✓ Students can gain greater understanding, stories and real-world examples from lecturers and other students

- ✓ Students have a greater chance of completing the course successfully by doing it in a classroom situation. (Completion rate of teacher-led classes is almost 5x higher than that of online learning)
- ✓ Students may feel more comfortable and learn more easily in a familiar, traditional classroom situation
- ✓ Students can access more information and richer understanding through teacher and other students' body language and voice
- ✓ Students have the opportunity to connect with, problem-solve, and network with other students from a wide range of backgrounds

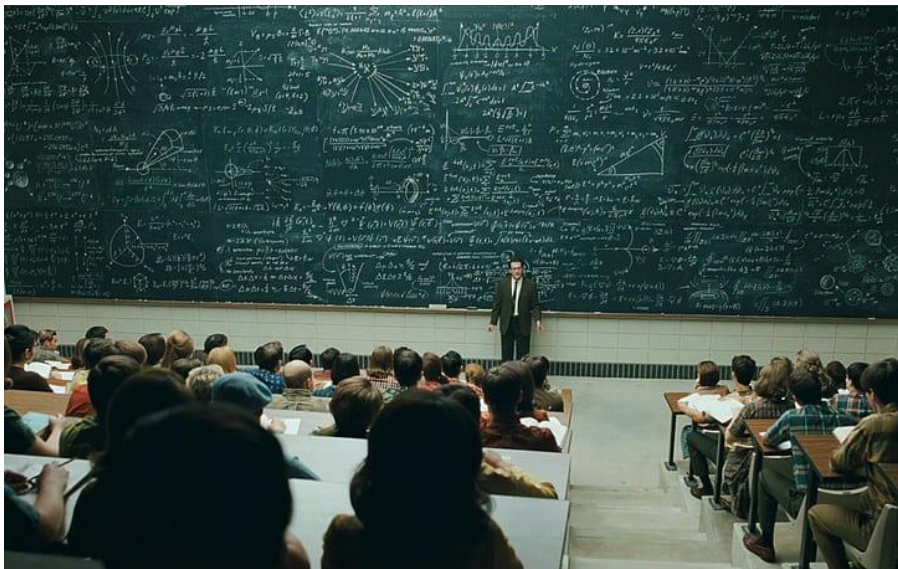


Figure 12. Face to face learning ([Blackboard, Classroom wallpaper](#)).

## ONLINE LEARNING ENVIRONMENT

An online learning course is for students who take online using a computer, without being with a teacher or other students in a classroom. Students have greater flexibility and can study from home. Most courses don't need to be online at a certain time of day or night, but students must actively participate in the course during the course time frame (National Youth Mental Health Foundation, 2021).

The main keywords:

- ✓ Immersive learning in the virtual space
- ✓ Teacher becomes a facilitator

- ✓ Synchronous and asynchronous interactions
- ✓ Participation at your own pace, flexible, convenient
- ✓ More opportunities for the individual study
- ✓ Diversity of resources
- ✓ Self-discipline and more screen-time.

#### The Advantages of an Online Learning course

- ✓ Students will study in the comfort of their own home, or wherever he or she want
- ✓ It costs less – no need to travel for training, and no parking expenses
- ✓ Courses fit around student's life, family and other things you do
- ✓ Students will avoid being late to class, or getting distracted in class
- ✓ Students can learn from their peers
- ✓ Students have access to the course 24/7
- ✓ It may be more relaxed than in a classroom setting
- ✓ Students are able to build up your skills interacting with technology
- ✓ The delivery methods are different and engaging (National Youth Mental Health Foundation, 2021).



Figure 13. Online learning (GBSB Global Business School).

## BLENDED LEARNING ENVIRONMENT

Blended learning, also known as hybrid learning, combines online educational materials and opportunities for interaction online with traditional place-based classroom methods. It requires the physical presence of both teacher and student, with some elements of student control over time, place, path, or pace. The web-based part effectively replaces, but does not complement, part of the face-to-face communication time. Blended learning systems as learning systems that combine face-to-face instruction with computer mediated instruction. Blended instruction is reportedly more effective than purely face-to-face or purely online classes (moodLearning, 2015). Blended learning methods can also result in high levels of student achievement more effective than face-to-face learning.

By using a combination of digital instruction and one-on-one face time, students can work on their own with new concepts which frees teachers up to circulate and support individual students who may need individualized attention.

The main keywords:

- ✓ Well – suited for large group
- ✓ Better preparation and feedback
- ✓ Better communication and collaboration
- ✓ Students set their own pace
- ✓ Balance in terms of cost and effectiveness
- ✓ Basic technology knowledge
- ✓ Huge technological dependence

Tips might just help you begin:

- ✓ Choose “intuitive” tools and platforms that require the least amount of technical “know-how” initially
- ✓ Ensure devices and media used for teaching encourage collaboration and interactive sessions
- ✓ Constantly evaluate what works and what doesn’t and adapt based on feedback

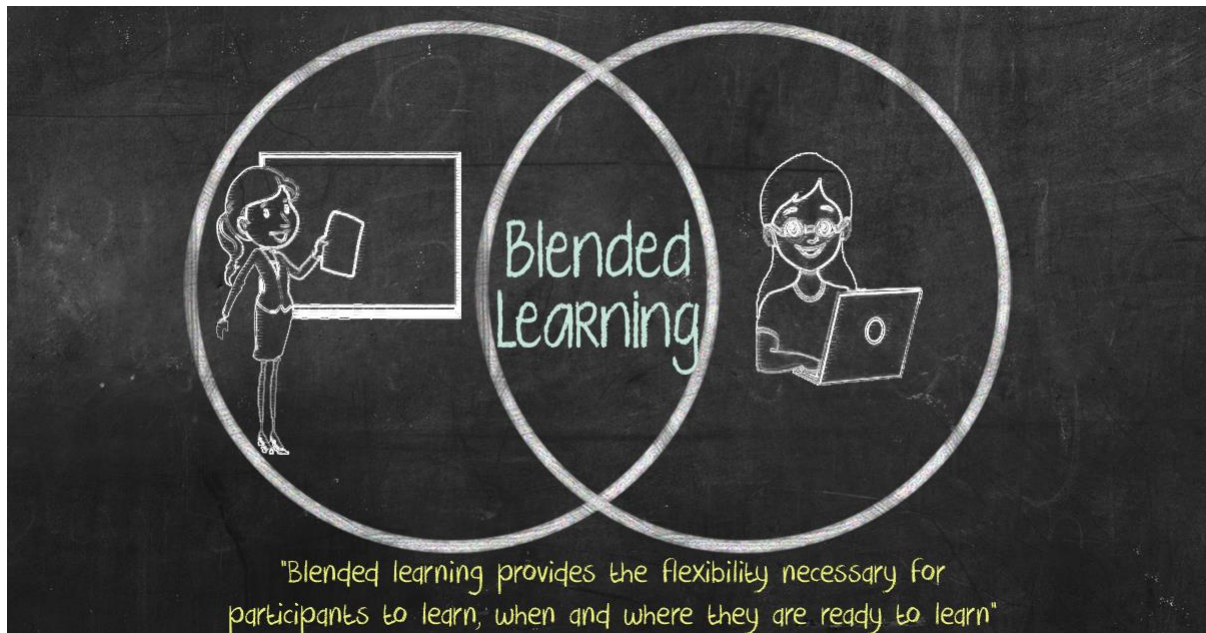


Figure 14. Blended learning (mood Learning, 2015).

## 18. LEARNING TOOLS

Learning tools are the resources used for pedagogical purposes that facilitate learning (IGI Global Dictionary). Having the right supplies in your classroom can enrich student learning and make classroom management easier.

The mental and physical learning space are strongly linked. When students sit in the back rows, they cannot communicate openly in the learning process; nor is the position of students equal. The modern approach to learning also requires a modern learning environment. Mutual trust and a free atmosphere are prerequisites for effective learning. Some environments inspire creativity and courage, engage in developmental and spiritual challenges, while others encourage irresponsible execution, evasion, and passivity (Sutrop *et al*, 2017).

### In classroom

#### Rows of benches for students sitting one behind the other

- ✓ Bench rows are suitable for individual work if you only need to focus on your tasks
- ✓ Communication, listening, consideration for each other and learning from each other are not supported by this layout

- ✓ The bench system also creates inequalities in the ranks, because the students of the first and last bench relate to the teacher and other classmates differently (Sutrop *et al*, 2017).



Photo 1. Sitting behind the other. (K. Võlu Training Centre).

### U-shaped layout

- ✓ Everyone can see and hear everyone, it is possible to cooperate with the bystander, the table in front of the learner ensures security
- ✓ It is convenient for the lecturer to move around the room: the field of view is open and can communicate in an equal position, and the lecturer can see, guide and give feedback to all students equally
- ✓ In such a room, it is also good to do role-playing games and communication exercises that require movement and pairing, as well as movement exercises, as there is a large empty space in the middle of the room
- ✓ Suitable for up to 20 students (Sutrop *et al*, 2017).



Photo 2. Effective Classroom Arrangement by Caleb Allen.

Circular chairs without tables create the most open communication environment.

- ✓ When there are no barriers (tables) between people, the most trusting conversation usually develops
- ✓ It is suitable if the joint discussion is followed by group work, because outside the circle you can usually accommodate 5-6 tables, around which groups of 4-5 people can gather after learning in the circle
- ✓ Some students may feel insecure when not at the table (Sutrop *et al*, 2017).



Photo 3. Learner-friendly learning environment (Estonia).

#### Learning in boards

- ✓ It is recommended to place the tables in a semicircular room so that no tables are behind the other and the chairs can be easily placed around the table so that everyone is visible to everyone
- ✓ A suitable board size is four to six people
- ✓ Learning on the board promotes collaborative learning and consideration for each other
- ✓ It must be ensured that the workplaces of all students are adequately lit and that the lecturer, the board, slides, etc. can be observed if necessary (Sutrop *et al*, 2017).





Photo 4. Learner-friendly learning environment (Estonia).

#### Teacher position in the classroom

- ✓ The same plane helps to prevent the so-called top-down viewing position
- ✓ Respect for each other is important in the learning space: it must be reciprocal and conducive to it, as well as the lecturer and students being on the same level in terms of the physical environment
- ✓ At the same time, the need for personal, so-called private space for both the lecturer and the students may be different
- ✓ The better the atmosphere in the classroom, the smaller the distances may be (Sutrop *et al*, 2017).

Classroom learning must be supported by the necessary tools such as a blackboard, whiteboard, data projector, internet connection with connection code. It is important to ensure access to the library as well.

Learning can take place anywhere. It is great to have rooms in the school building where students can develop.

#### Training rooms and equipment

**Sports hall** - it is possible to stay in good physical shape and perform the physical tests. **Prison cell** learning environment provides an opportunity to study for real work in similar conditions.

It is possible to stage crime scenes, such as attacking a guard, escaping, a fire, etc. to use special vehicles e.g. for escorting prisoners. [Virtual Simulation Centre](#), e.g. [Virtual Prison](#) provides an opportunity to organise various events. The student can select and use various resources when solving a virtual event, including using radio stations to transmit information. Different [Smart Devices](#) e. g. computer, tablet, electronic database is used. [Specific equipment](#) e.g. personal protective equipment - bulletproof vest, shield, helmet, handcuffs, special vehicles are in use. The training rooms and equipment support practical learning and prepare students for real work.



Photo 5. Prison Training complex in Estonian Academy of Security Science.



Photo 6. Training environment (Prison Training Complex) for practical learning in Estonian Academy of Security Science.



Photo 7. Simulation Centre in the Estonian Academy of Security Science. Rescue College practices.

### Exam/Assessment Tools

Lecturers need to know how well students are assimilating lessons so as not to leave anyone behind. Lecturers also have to assess each student at the end of the module and bestow a final grade that reflects both their understanding and their level of effort. Online assessment tools for lecturers are a necessary part of the remote learning picture (Gerencer, 2020).

Different assessment tools used by the lecturer can be formative or summative in nature. Formative assessment tools are the quizzes, assignments, and in-class questions and discussions lecturers use to gauge and guide (or form) their students' learning process. Summative assessment tools are the final essays and tests given at the end of a module or whole curriculum.



[Socrative \(classroom engagement tool\)](#) is a smart student response system that empowers teachers to engage their classrooms through a series of educational exercises and games via smartphones, laptops, and tablets.

Website: [socrative.com](https://www.socrative.com)

Cost: Free.

Availability: Online (Hart, 2021).

**Socrative** is an interactive digital tool that lets quiz, grade, and assess on-the-fly; “at the speed of learning.” Lecturers can choose from quick questions for instant feedback, class counts to see who’s logged in, or full quizzes for deeper understanding. This versatile tool lets create polls and activities and shuffle questions, with or without student names attached. Quizzes are graded in real time, and lecturer can store them for re-use with other groups. It works on smart phones, tablets, laptops, and other devices on MS Windows, Android, and iOS. It’s 100% free for students, and it’s simple and flexible (Gerencer, 2020).



**Google Forms (online forms/survey tool)**. With Google Forms you can create and analyze surveys online.

Website: [google.com/forms/](https://google.com/forms/)

Cost: Free

Availability: Online (Hart, 2021).

**Google Forms** is easy to use. It’s quick and simple to create and automatically grade quizzes even if it’s your first time using the tool. Create multiple-choice quizzes or short-answer quizzes and make an easy answer key with point assignments for each question. Google makes it easy for students to answer questions by clicking a drop-down, typing a fast text answer, or posting a short YouTube video. Lecturers can view graphs and summaries of frequently missed answers for a quick view of the class as a whole. Lecturers can also share grades with students at the click of a mouse (Gerencer, 2020).



**Poll Everywhere**. It integrates with Google apps like Google Slides or MS PowerPoint. Get a snapshot of where students are struggling by creating questions as word clouds, open student responses, or with multiple-choice options. Then let students answer with their phones, laptops, or tablets. Lecturers can get real-time feedback in their question slides without calling

on specific individuals to roll out assessment as an integrated part of a larger lecture (Gerencer, 2020). Kahoot & Quizlet are also suitable for evaluation, see below.

## ELECTRONICAL LEARNING TOOLS IN CLASSROOM



Quizlet ([games/testing tool](#)) is a website providing learning tools for students, including flashcards, study and game modes.

Website: [quizlet.com](https://quizlet.com)

Cost: Free and Premium versions

Availability: Online (Hart, 2021).



Kahoot ([live engagement tool](#)) is a game-based learning platform for business and education.

Website: [getkahoot.com](https://getkahoot.com)

Cost: Free and premium plans

Availability; Online (Hart, 2021).



Padlet ([organize & share on bulletin boards](#)) is an online noticeboard, which means it can be used for personal note-keeping as well as collaborative brainstorming.

Website: [padlet.com](https://padlet.com)

Cost: Free

Availability: Online (Hart, 2021).



Canva (graphics tool) is a graphic design platform that allows users to create social media graphics, presentations, posters and other visual content.

Website: [canva.com](https://canva.com)

Cost: Free and Premium plans

Availability: Online and iPad app (Hart, 2021).

## ONLINE LEARNING TOOLS IN ELECTRONICAL ENVIRONMENT



Moodle (learning platform) is an open source learning platform for education and workplace training.

Website: [moodle.org](https://moodle.org)

Cost: Free. Open source

Availability: Download (Hart, 2021).

Possibility of use:

Tools for uploading learning and teaching materials

Tools for activities: communication, group works, feedback

Tools for assignments (homework, glossary)

Tools for student evaluation (inc. self-evaluation)

BigBlueButton (videolecture, sharing materials, breakout rooms for group works, whiteboard), recording, polling

## DISTANCE LEARNING TOOLS IN ELECTRONICAL ENVIRONMENTS



Zoom (video meeting platform) unifies cloud video conferencing, simple online meetings, and cross platform group chat into one easy-to-use platform.

Website: [zoom.us](https://zoom.us)

Cost: Free and Premium versions

Availability: Online (Hart, 2021).

Possibility of use:

Conference

Sharing materials

Breakout rooms

Communication Chat

Feedback

Recording

Whiteboard



[Microsoft Teams \(enterprise collaboration platform\)](#) is the team workspace in Office 365.

Website: [teams.microsoft.com](https://teams.microsoft.com)

Cost: Office365 requires a subscription

Availability: Online (Hart, 2021).

Possibility of use:

Video, audio

Sharing screen/information

Breakout rooms

White board

Chat

## ONLINE LEARNING TOOLS



[Facebook \(social network\)](#) is primarily used by individuals for personal networking, it is also used in education for study groups.

Website: [facebook.com](https://www.facebook.com)

Cost: Free

Availability: Online (Hart, 2021).



[Google Docs & Drive \(office suite/file sharing platform\)](#) is used to create documents, Google Sheets for spreadsheets, and Google Slides for slide sets – individually or collaboratively. Google Drive is the cloud storage service, where you can also up host other.

Website: [google.com/docs](https://www.google.com/docs)

Cost: Free

Availability: Online (Hart, 2021).



[WhatsApp \(messaging app\)](#). Not just a personal messaging app, its broadcasting and group functionalities make it a valuable communication tool.

Website: [whatsapp.com](https://www.whatsapp.com)

Cost: Free

Availability: Download app (Hart, 2021).





[Mentimeter \(live engagement tool\)](#) is a tool that lets you engage and interact with your audience in real-time.

Website: [mentimeter.com](https://www.mentimeter.com)

Cost: Free and Premium versions

Availability: Online (Hart, 2021).



[Quizizz \(games/testing tool\)](#). Find and create quizzes. It works on any device with any browser. Live.

Website: [quizizz.com](https://www.quizizz.com)

Cost: Free.

Availability: Online (Hart, 2021).



[Quizlet \(games/testing tool\)](#) is a website providing learning tools for students, including flashcards, study and game modes.

Website: [quizlet.com](https://www.quizlet.com)

Cost: Free and Premium versions

Availability: Online (Hart, 2021).



[Coggle \(mindmapping tool\)](#) is an online tool for creating and sharing mindmaps and flowcharts.

Website: [coggle.it](https://www.coggle.it)

Cost: Free and paid plans

Availability: Online (Hart, 2021).



Skype (messaging and calling app) is useful for one-to-one interactions as well as group conversations. Skype for Business is an enterprise tool, and Skype in the Classroom an educational tool.

Website: [skype.net](https://skype.net)

Cost: Free for computer-computer use. Pay to call landlines and mobile phones, and send SMS messages

Availability: Download (Hart, 2021).

## **19. CONTENT (TOPICS)**

The essence of a learning activity is that it must have an associated learning outcome. However, it must also have a task, that is, something concrete that the learner has to do. Learning content is broadly defined as the topics, themes and concepts, often grouped within each subject or learning area under knowledge and skills, that are expected to be learned and form the basis of teaching and learning (UNESCO-IBE, 2013).

The content of the training is created by the lecturers, and the needs of the employer is taken into account. If there is a change in the world of work, the content of learning must also be supplemented.

The content of learning is to achieve a specific result. Learning is built from easy to more complex. The theoretical basis is learned before practical training. This principle applies to the ranking of modules as well as to the teaching of specific outcomes.

When creating the study content, the appropriate teaching method is chosen to teach each topic. A learning environment and learning methods are planned, suitable learning tools are selected, the time spent learning is calculated. During the preparation, the whole learning process is carefully considered, including the need to analyze and evaluate the results, the time, forms and methods required for this.

Contact learning and independent learning are linked and are studied in parallel. E-learning can be used for both - contact and independent learning.

**Example**

Table 26. Content and topic.

Curriculum: Prison Guard (Estonia)

Module: Carrying out of Surveillance activities

<i>Topic: Response to Emergency Situations</i>		
<i>Scope: 3 EVCT 78 ac/h (L-16, S-46, I-16)</i>		
<b>Learning outcome</b>	<b>Subtopics and core activities:</b>	<b>Learning and teaching methods</b>
Acts as a first responder and solver in the emergency situation	<ol style="list-style-type: none"> <li>1. Aggressive and dangerous prisoners</li> <li>2. Convicts at risk of escape</li> <li>3. Security measures</li> <li>4. Information transferring</li> <li>5. Prevention of an emergency event</li> <li>6. Assessment and resolving of the situation</li> <li>7. Surveillance in dangerous situations</li> <li>8. Situations of applying coercion</li> <li>9. Communication in a resource-intensive situation</li> <li>10. Injuries, fires</li> <li>11. The Plan and its general principles for resolving Emergency Situations in prisons</li> <li>12. Key activities in solving resource-intensive events</li> <li>13. Protective equipment</li> <li>14. Standard of skills for the use of direct coercion in prison service</li> <li>15. Mass management</li> <li>16. Cooperation with other operational services and agencies</li> </ol>	<p><b>Lecture, seminar:</b> The plan and general principles for solving emergency situations in prisons; emergency situations in prison; dangerous prisoners.</p> <p><b>Practical exercises:</b> Surveillance in dangerous situations Recognition of injury, fire and other accident, including appropriate communication of hazard information and information requirements Response to an emergency event or, in the event of a threat thereof, initial action at the scene. Preventing the escalation of an emergency event</p> <p><b>Independent work:</b> Prepares an emergency plan. The plan to download Moodle Environment: 7.1.2022 at 23.55</p>

**20. LEARNING AND TEACHING METHODS**

Learning and teaching methods are means by which the trainer creates a learning environment in which the learner has different experiences and learns actively. It is important that there are sufficient resources to plan, guide and provide feedback.

The choice of teaching methods has to take into account the objective of learning, learning outcomes, the specifics of the learner, the previous experience of the learners and the available resources.

Teaching methods should be consistent with the training as a whole. The learning process is an interconnected system (See Figure 15).

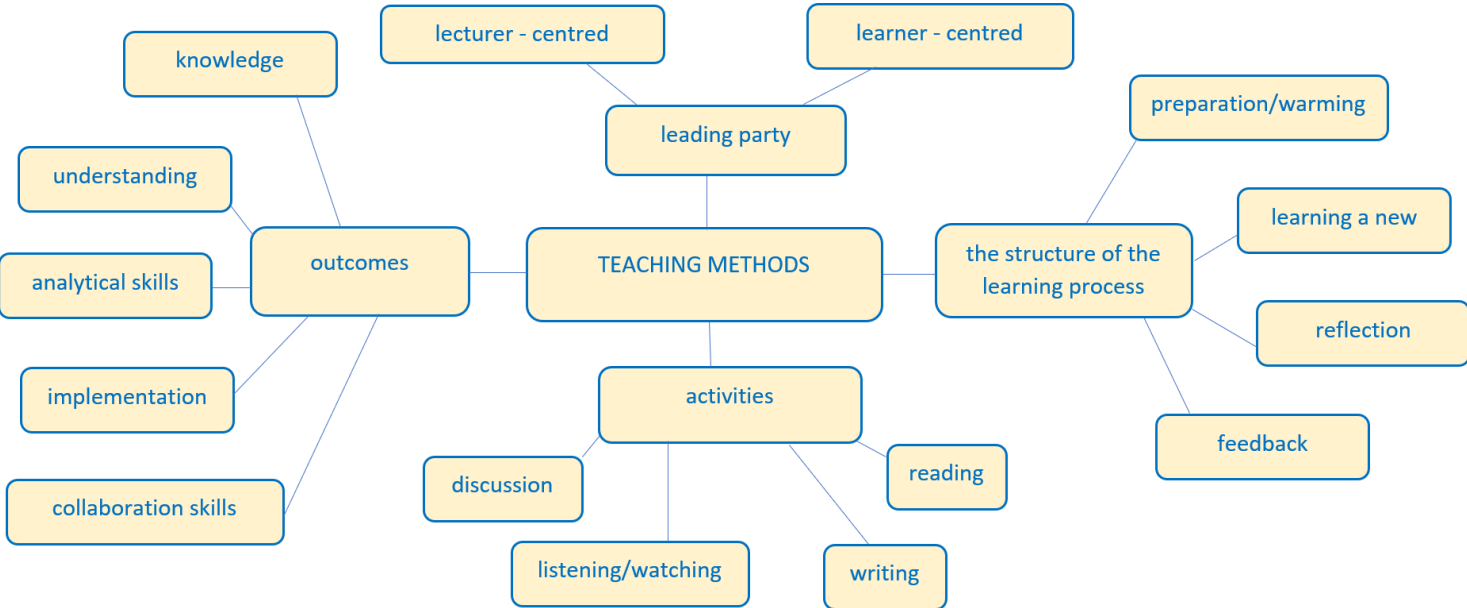


Figure 15. Classification of teaching methods (Koor, p 1)

The approaches for teaching can be broadly classified into teacher centred and student centred. In a teacher-centred approach to learning, teachers are the main authority figure in this model. Students are viewed as "empty vessels" whose primary role is to passively receive information (via lectures and direct instruction) with an end goal of testing and assessment. It is the primary role of teachers to pass knowledge and information onto their students. In this model, teaching and assessment are viewed as two separate entities. Student learning is measured through objectively scored tests and assessments. In the Student-centred Approach to Learning, while teachers are the authority figure in this model, teachers and students play an equally active role in the learning process. The teacher's primary role is to coach and facilitate student learning and overall comprehension of material. Student learning is measured

through both formal and informal forms of assessment, including group projects, student portfolios, and class participation. Teaching and assessments are connected; student learning is continuously measured during teacher instruction.

Table 27. Teacher centered and student centered approach.

Teacher-Centered	Learner-Centered
Focus is on teacher	Focus is on both students and teacher
Teacher talks, students listen	Teacher models, students interact with instructor and one another
Students work alone	Students work in pairs, in groups, or alone depending on the purpose of the activity
Teacher monitors and corrects every student utterance	Students talk without constant teacher monitoring, teacher provides feedback/correction when questions arise
Teacher evaluates student learning	Students evaluate their own learning; teacher also evaluates
Classroom is quiet	Classroom is often noisy and busy

Learning outcomes and there is no single link between learning methods: different learning methods can support the achievement of one learning outcome, as well as one learning method (e.g case study) may be suitable for achieving different learning outcomes (analysis, synthesis, implementation) (Koor, p 1).

The following methods are suitable for conducting and enhancing the lecture:

**Brainstorming.** Students are asked to remind for a few minutes everything they know or think they know about the topic. Then they share with their neighbor or in a large group.

**Muddiest point in lecture.** Students answer the question: "What was the most confusing or incomprehensible in the lecture or topic?"

**Videoclips.** Students are watched a video clip on the topic - learners are asked questions to focus on before watching.

**3-2-1.** At the end of the lecture, the students write down three things that were already familiar to them in today's lecture, two questions that were still confusing and one topic that they would like to hear more about.

**Buzz group.** Thematic discussion (for example, discussion based on the material of the previous part of the lecture) in groups of 3-4 members. Some groups may be asked to point out 1-2 ideas from the discussion in the buzzing group.

**Polling/Questionnaire.** A short test can be taken to test students' knowledge or attitudes towards the topic. The students check the answers to the test during the lecture or seminar.

**Suspicious statements.** Learners are presented with suspicious statements. The learner answers the questions and then discusses them with others. The aim is to stimulate debate (Karm, 2021. See Figure 26).



Figure 26. Methods for conducting a lecture.

There are suitable teaching methods for conducting a seminar in which the student has a leading role:

**Graphic organizer.** The graphic organizer (concept map) is used as a graphic aid for organisation and visual presentation. Concept maps are usually compiled to describe some phenomena in more detail.

**Discussion on acquired topics with a classmate.** The discussion is preceded by a 15-minute lecture, the question of a couple discussion is based on the material presented in the previous section of the lecture. The content of the discussion may also be to highlight and discuss previous experiences on the subject.

**Case solving in group.** The task of the students is to analyze the situation, define the problem and suggest a solution and introduce the solution to other students. A case solving model is usually provided.

**Discussion on student offered video.** Students search for a video on a topic they have learned. Students bring out right and wrong interventions in the video.

**Circulating movement.** Learner-centered method of group work in which groups look for answers to different questions one after the other. A circular overview is suitable both for expressing students' views and opinions and for summarizing knowledge at the end of a topic.

- ✓ *Questions 6-8 are written on large, numbered sheets of paper and placed in different places in the room.*
- ✓ *Groups discuss it for five minutes and write the answer on the same page.*
- ✓ *After the trainer's alert, students move on to the next page and read what has been answered. Students' comments will be added to the same page.*
- ✓ *Move on and repeat until the group returns to their first question.*
- ✓ *This will continue the discussion of the material on the pages.*

**Think-pair-share.** The student is given a problem that they need to think about first, then discuss it with the classmate and finally share it with the class (Karm, 2021. See Figure 27).

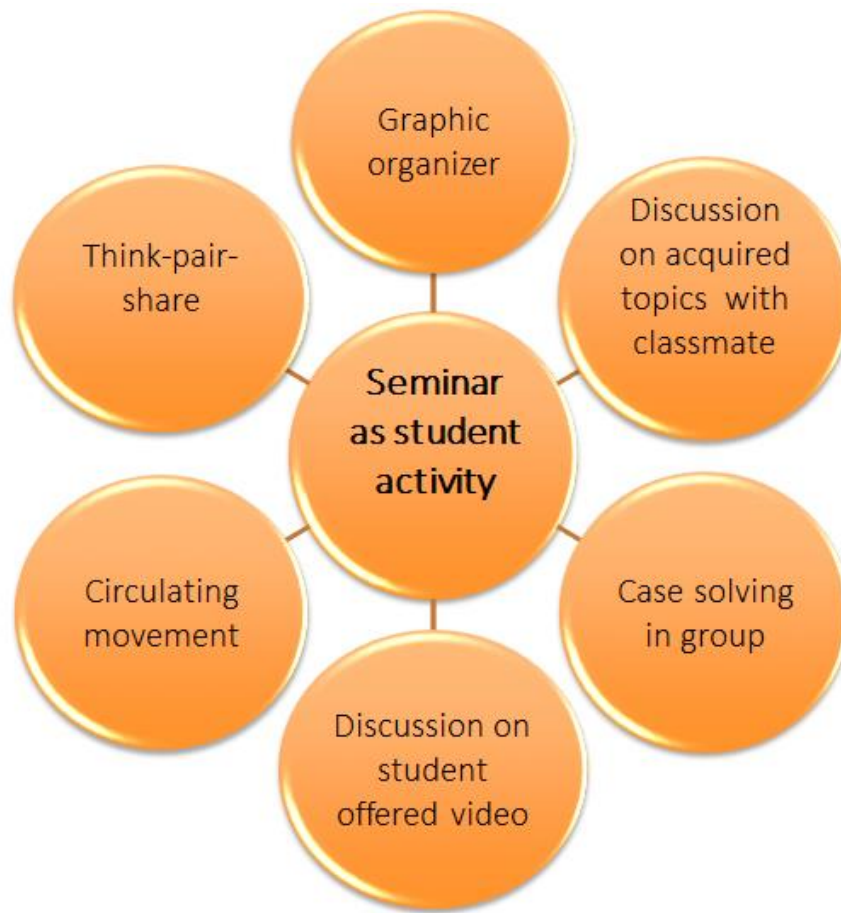


Figure 27. Methods for conducting a seminar.

**The practical methods** are similar to work situations i.e. teaching and learning activities based on 'real life experience' help learners to transform knowledge or information into their personal knowledge which they can apply in different situations. Practical application of what has been learned is a complex process and it works better than the student has solved different problems during the learning process. The purpose of practical learning is to consolidate theoretical knowledge through practical action processes. Skills are developed to analyze the situation and plan one's activities to cope with similar work situations.

**Role play** is a teaching method that consists of mini-stage improvisation with students as actors. Role play prepares students for future professional challenges. Students are given the opportunity to share



**Demonstration and physical exercise.** Used to present techniques and rules. The lecturer presents a new part to the student, either through a video or a demonstration. The learner repeats techniques to develop skills and abilities.

Suitable methods for practical work are shown in the Figure 28.



Figure 28. Methods for practical work.

**Independent learning** can take place alone or with classmates. For example, film the case and solve it according to the case resolution model and introduce it to other groups. In the case of group work, in addition to the acquired knowledge and skills, the ability to do teamwork is also assessed.

**Reading material and other sources** is a classic learning method. It is advisable to allow the student to get acquainted with the video and audio materials independently. The time of the contact hour can be used to discuss what has been acquired independently, to consolidate it and to clarify unclear places.

**Written homework.** The student should do something with the read text. For example, give questions that the student must answer or the student prepares a report based on what has been read.

**Case-solving.** The student analyzes the case according to a given case-solving model.

**Fill out documents.** After completing the practical learning, the required documents for the case are prepared.

Suitable methods for independent learning are shown in the Figure 29.



Figure 29. Methods for independent learning.

Use appropriate methods at different stages of learning.

- ✓ In the new learning phase, the learner becomes acquainted with new information by reading text, listening to or viewing material, or experiencing something (Pilli, *et al*).
- ✓ At the beginning of the learning process, it is appropriate to use learning methods that help to focus on learning, arouse interest, set goals or arouse prior knowledge (e.g brainstorming, defining key concepts).
- ✓ In the new learning phase, it is important to support the deepening of the meaning of the new material and the connection of new information with the acquaintance (e.g communicative lecture, independent reading, asking questions).

Appropriate learning methods for reinforce learning that support the use of learning in new contexts and new situations are e.g. solving tasks, writing summaries (Pilli *et al*).

### Example

Table 28. Curriculum: Professional Intervention techniques and tactics in Penitentiary Institution:

Module: Communication styles at different stages of the event requiring intervention		
Learning outcome	Topics and core activities:	Learning and teaching methods
Explains the content of different communication styles.	1.1. Types of communication Non-verbal communication Verbal communication Written communication Visual communication 1.2. Types of Communication Styles Assertive communication style Aggressive communication style Passive communication style Passive-aggressive communication style Manipulative communication style	Lecture, seminar: The lectures present theoretical topics (1.1-1.2) from slides and/or from videos.  Practical exercises: Students work in a pairs and choose the appropriate communication style for the cases on the worksheet.  Independent work: Read page 1-5 of the „Student book “. Solves self – assessment quizzes in the Moodle.

Table 29. Curriculum: EMERGENCY RESPONSE AND CRISIS MANAGEMENT IN PENITENTIARY INSTITUTIONS

Module: Escape and Prevention of Escape Attempts		
Learning outcome	Topics and core activities:	Learning and teaching methods

<p>Explain the concepts and purpose of escape and escape attempts.</p>	<p>1.1. Definition of escape Purposes of Escape Actions</p>	<p>Lecture, seminar: Presentation, pre-recorded lecture, Moodle.</p> <p>Practical exercises: Discussion in pairs/in groups</p> <p>Independent work: Reading learning materials, "Student book" (pp. 10-15) Self – assessment quizzes in the Moodle.</p>
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## 21. LIST OF REFERENCES

One of the components of the curriculum is teaching materials that support the learning of the learner in both contact learning and independent work.

Literature used in teaching, which may take the form of a book, a textbook, an article or other form, is referred to as teaching materials.

When choosing the study materials to be included in the curriculum, the lecturer must take into account their availability. This means that materials used in teaching must be rented out either from the library or downloadable from the Internet.

The teaching materials may be classified as two: [mandatory](#) and [recommended](#).

[The mandatory sources](#) are directly related to the learning. Certainly, the material needed for independent work must be included. Mandatory sources may be, for example:

- ✓ Lecturer created materials
- ✓ Student Books/Handbooks
- ✓ Legal Acts/Judgments of the Supreme court/Government Documents/Employer internal instructions
- ✓ Websites
- ✓ E-learning courses

## NB!

- ✓ The reading time shall be adequately planned and shall correspond to the volume of the study.
- ✓ Foreign language material may be included in the mandatory material if it is known that it is affordable for all participants.

[Recommended sources](#) support the ability to acquire additional knowledge and skills.

Recommended sources may be, for example:

- ✓ Books/Book Chapters
- ✓ Scholarly publications (Journals) *contains articles written by experts in a particular field*
- ✓ Conference proceedings
- ✓ Websites

List of sources shall be formulated academically. The same format is required for students.

Checklist of what to include in your reference list for the most common information sources (see: [Library guides](#))

Table 30. Checklist for the most common information sources.

	Book	Chapter from book	E-book	Journal article (print and electronic)	Web page
Author	X	X	X	X	X
Year of publication	X	X	X	X	X
Title of article/chapter		X		X	
Title of publication	X	X	X	X	X
Issue information (volume/part number if available)				X	
Place of publication	X	X			
Publisher	X	X			
Edition	X	X			
URL/DOI			X	X	X
Date accessed/downloaded			X		X

## Example

### Mandatory sources:

1. Luige, S., Vanaisak, Ü. (2021) Development of curricula designing. Tallinn: Estonian Academy of Security Science.
2. The European Qualifications Framework (2021) [Online material] Available at: <https://europa.eu/europass/en/european-qualifications-framework-efq> [Accessed on 17.11.2021].
3. E-course in Moodle. 2021. "Kuruma Kabul Dirimi Eđitimi" Available at: <https://cteuzem.adalet.gov.tr/login/index.php> [Accessed on 13.12.2021].

### Recommended sources:

1. Borin, N., Metcalf, L. E., Tietje, B. (2008) Implementing Assessment in an Outcome-Based Marketing Curriculum. *Journal of Marketing Education*, 30 (2). [Online material] Available at: <https://sage.sisekaitse.ee/doi/pdf/10.1177/0273475308317706> [Accessed on 17.11.2021].
2. Library guides. Available at: <https://lit.libguides.com/Write-it-Right/elements-in-references#s-lg-box-14643105> [Accessed on 13.12.2021].

## 22. VERTICAL AND HORIZONTAL COHERENCE

The term *coherent curriculum*, or *aligned curriculum*, refers to an academic program that is well organized and purposefully designed to facilitate learning, free of academic gaps and needless repetitions, and aligned across lessons, courses, subject areas, and grade levels (Glossary of education reform).

In most cases, the term refers to the alignment of learning standards and teaching—i.e., how well and to what extent a school or teacher has matched the content that students are actually taught with the academic expectations described in learning standards—but it also refers to coherence among all the many elements that are entailed in educating students, including

assessments, tests, textbooks, assignments, lectures, and instructional techniques (Glossary of education reform).

An incoherent curriculum, for example, might be an academic program in which lecturers have independently decided what students will learn without collaborating with other lecturers, basing what they teach on consistent learning expectations or considering what students learned in previous courses and will need to know in subsequent courses. Consequently, what students learn in any given course may unnecessarily repeat lectures from previous years or overlap with what is taught in other courses. In addition, the assignments and textbooks given to students may not prepare them for the assessments they will have to complete, and the tests given in a course may not evaluate whether students have met the academic expectations for a particular course (Glossary of education reform).

A curriculum that is coherently organized and sequenced, on the other hand, avoids these potential issues—at least in theory. What students are learning builds on what they have learned previously, and lectures are not unnecessarily repetitive or redundant across courses, subject areas. Lecturers generally know what is being taught by other lecturers, particularly lecturers in the same subject area, including the subject-area material and standards that are taught in both previous and subsequent grade levels. All learning materials—from textbooks and reading materials to quizzes and tests—are based on the same consistent and coherent set of learning expectations.

Generally speaking, there are two main forms of curriculum coherence:

**Horizontal coherence.** Curriculum horizontal coherence, or coherence of modules/subjects level, means that what is set as a goal in learning outcomes is assessed, learned and taught. The greater the coincidence between the objectives and their achievements, the greater the coherence. This requires coherence between the different components of the subject matter, in which what is formulated in the learning outcomes is assessed, and in which the teaching methodology is chosen so that the learning outcomes can be achieved and successfully demonstrated in the assessment.

When a curriculum is *horizontally aligned* or *horizontally coherent*, what students are learning in the Crisis Management course, for example, mirrors what other students are learning in the

different Crisis Management course. In addition, the assessments, tests, and other methods lecturers use to evaluate learning achievement and progress are based on what has actually been taught to students and on the learning standards that the students are expected to meet in course.

#### ◀ HORIZONTAL COHERENCE

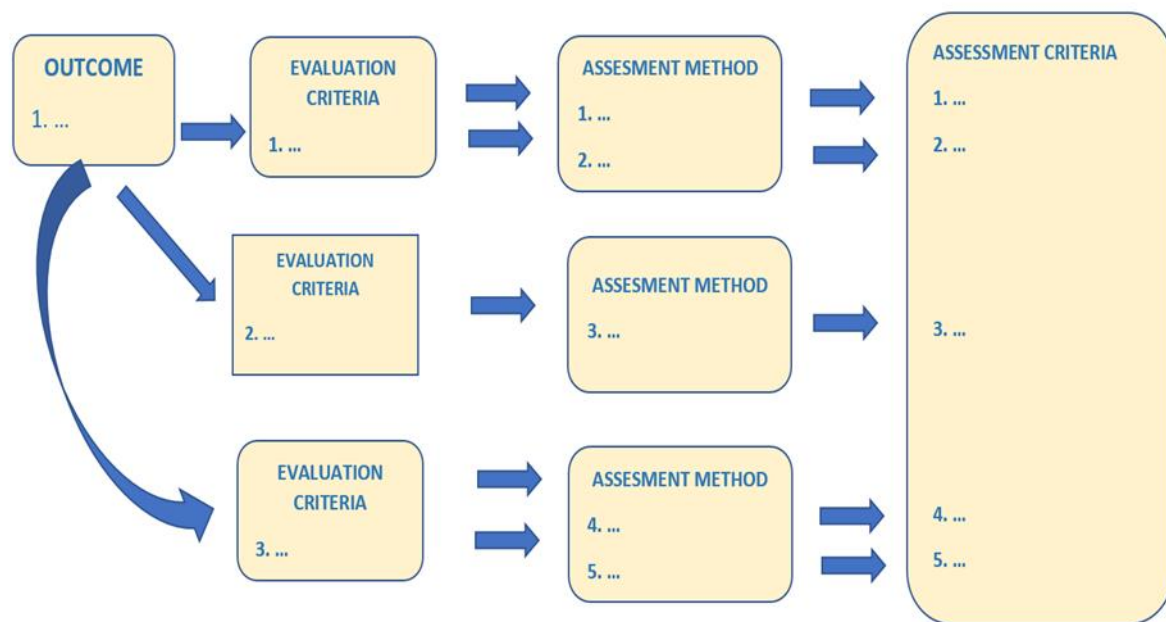


Figure 30. Horizontal coherence of curriculum.

Coherence also includes realistic consideration of the students' prior knowledge and a thoughtful selection of the resources (time, etc.) needed for learning.

In addition to the internal (horizontal) coherence of the module matter, it is also necessary to monitor the coherence between the modules.

**Vertical coherence.** When a curriculum is *vertically aligned* or *vertically coherent*, what students learn in one lesson, course, or grade level prepares them for the next lesson, course, or grade level. Teaching is purposefully structured and logically sequenced so that students are learning the knowledge and skills that will progressively prepare them for more challenging, higher-level work.

Vertical coherence is in line with the scope of the curriculum, the scope and learning outcomes of the modules and the topics.



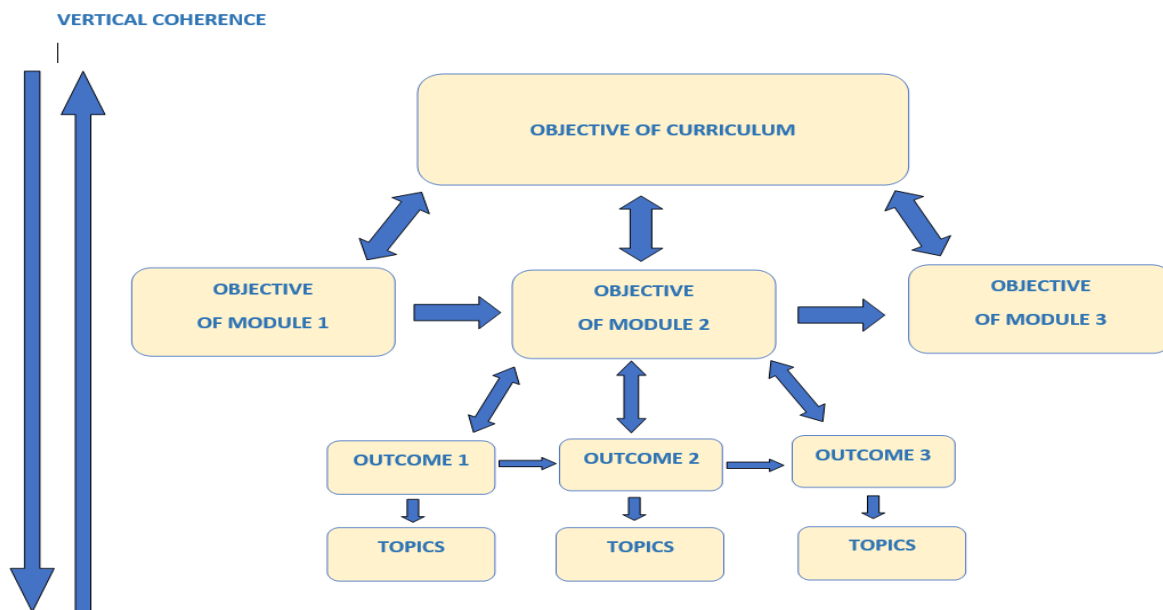


Figure 31. Vertical coherence of curriculum.

Generally speaking, the concept of a coherent curriculum grew out of the recognition that what is taught and learned in educational institutions may not only be misaligned, but—in more extreme circumstances—random, disordered, and potentially detrimental to students. For example, in some educational institutions the lecturer might decide what gets taught in a course based on personal preference, convenience, past habits, outdated instructional materials, and other factors unrelated to what is appropriate for or in the best interests of students. In addition, curriculum and instructional expectations for lecturers might be uneven or nonexistent, which could lead to educational disparities that disadvantage some students. For example, one teacher might cover a lot of material in a given course, and teach it in an engaging way, while a colleague, teaching a similar course, might teach far less content and teach it comparatively poorly (disparities such as these have been well documented in educational research).

For these and other reasons, for education is required or encouraged greater standardization, with the overall aim of improving the quality of education and student achievement. The basic rationale is that when educators are working and teaching in concert, and using developmentally appropriate and well-defined learning expectations, students will learn more and leave school better prepared (Glossary of education reform).

## CONCLUSION

The purpose of compiling the GUIDELINES FOR DESIGNING OUTCOME – BASED CURRICULUM is to assist the user in developing outcome-based curricula for the preparation of prison officers. Contemporary education is constantly evolving and in order to use modern tools, relevant links have been added to the material.

The authors of the GUIDELINES FOR DESIGNING OUTCOME – BASED CURRICULUM hope that the produced handbook will be a useful assistant that will enhance the development of outcome-based curriculum and the creation of a student-friendly learning environment.

## SOURCES

Angelo, T. A., & Cross, K. P. (1993). Classroom assessment techniques: A handbook for college teachers. San Francisco: Jossey-Bass.

Apple, D.K. & Krumsieg, K. (1998). Process education teaching institute handbook. Pacific Crest.

Aruväli, S., Kaldas, H., Pilli, E., Reppo, S. Juhendmaterjal täienduskoolituse õppekava koostamiseks. 2016. Haridus- ja Teadusministeerium. Ecoprint.

Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, E. J., & Krathwohl, D. R. (Eds.) 1956. Taxonomy of educational objectives: The classification of educational goals. New York, NY: Longmans, Green and Co.

Bloom's Taxonomy of Measurable Verbs [Online material] Available at: <https://www.csun.edu/sites/default/files/Bloom%27s%20verbs%20for%20CT.pdf> [Accessed on 26.06.2021].

Boudreau, D. 2012. Creating The Ideal Learning Environment: Intellectual. Training skills for Coaches and Facilitators. [Online material] Available at: <http://trainerhub.com/creating-the-ideal-learning-environment-intellectual/> [Accessed on 30.12.2021].

Brissenden, G., & Slater, T. Assessment primer. In College Level One (CL-1) Team. Field Tested learning assessment guide. [Online material] Available at <http://www.flaguide.org> [Accessed on 17.12.2021].

Crespo Garcia, R. M., Najjar, J., Demtl, M., Leroy, D. "Aligning assessment with learning outcomes in outcome-based education," IEEE EDUCON 2010 Conference, 2010, pp. 1239-1246, doi: 10.1109/EDUCON.2010.5492385.

Curriculum Development Guide: Population Education for Non-Formal Education Programs of Out-of-School Rural Youth. 1996. Rome. [Online material] Available at: <http://www.fao.org/3/ah650e/AH650E00.htm> [Accessed on 31.12.2021].

Davis, B. G. (2009). Tools for teaching (2nd ed.). San Francisco, CA: Jossey-Bass.

Dee Fink, L., 2013. Creating Significant Learning Experiences: An Integrated Approach to Designing College Course. Francisco, CA: Jossey Bass.

Diamond RM 2008. Designing and Assessing Courses and Curricula (3E). San Francisco CA: Jossey Bass.

Dochy, F., Segers, M., Sluijsmans, D.1999. The use of Self-, Peer and Co-Assessment in Higher Education: a review. Studies in Higher Education. Vol 24, nr 3, 331- 350

Educating the Next Generation. Oblinger, D. G., Oblinger, J. L. 2005. Transforming Education Through Information Technologies. [Online material] Available at:

<https://web.archive.org/web/20160203064923/https://net.educause.edu/ir/library/pdf/pub7101.pdf> [Accessed on 30.12.2021].

El Sawi G. 1996. Curriculum development guide: Population Education for Non-Formal Education Programs of Out-of-School. [Online material] Available at: <https://agris.fao.org/agris-search/search.do?recordID=XF2016059752> [Accessed on 26.06.2021].

Estonian Quality Agency for Higher and Vocational Education. [Online material] Available at: <https://ekka.edu.ee/en/organization/> [Accessed on 26.06.2021].

European Parliament, Council of the European Union. Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European Credit System for Vocational Education and Training (ECVET) [Online material] Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32009H0708%2802%29> [Accessed on 13.12.2021].

Gale, K., Martin, K., McQueen, G. 2002. Triadic Assessment. Assessment and Evaluation in Higher Education, Vol 27, nr 6, 557-567.

Gerencer, T. 2020. 5 Best Online Assessment Tools for Teachers. [Online material] Available at: <https://www.hp.com/us-en/shop/tech-takes/best-online-assessment-tools-for-teachers> [Accessed on 30.12.2021].

Glossary of education reform. [Online material] Available at <https://www.edglossary.org/coherent-curriculum/> [Accessed on 19.12.2021].

Hart, J. 2021. Top 150 Tools for Education 2021. [Online material] Available at: <https://www.toptools4learning.com/ed150/> [Accessed on 30.12.2021].

IGI Global Dictionary. Pennsylvania, USA. [Online material] Available at: <https://www.igi-global.com/dictionary/> [Accessed on 30.12.2021].

International Bureau of Education. Scope and sequence (in curriculum). [Online material] Available at: <http://www.ibe.unesco.org/en/glossary-curriculum-terminology/s/scope-and-sequence-curriculum> [Accessed on 13.12.2021].

Jones, S., Tanner, H. 2006. Assessment: A practical Guide for Secondary teachers. London, New York: Continuum.

Kajander, H., Lapinleimu, O., Kaarakka, O. 2020. COMPETENCE BASED NEEDS ANALYSIS – Training Centre personnel. Component 2. Design/development of human resources system. Activity Number: 2.4. EU Twinning Project No. TR 16 IPA JH 05 19.

Kiehelä, H., Järveläinen, E., Normann, M., Kaarakka, O. 2020. Curricula Analysis Report. Component: 1. Establishment of a well-structured standard training system. Activity Number: 1.3., EU Twinning Project No. TR 16 IPA JH 05 19.

Kizlik, B. 2012. Measurement, Assessment, and Evaluation in Education. [Online material] Available at: <http://www.adprima.com/measurement.htm> [Accessed on 17.12.2021].

Koor, M. Õppemeetodite süsteem. Jako Koolitus OÜ. [Online material] Available at: <https://jako.ee/wp-content/uploads/2019/04/oppemeetodid.pdf> [Accessed on 21.12.2021].

Kuruma Kabul Dirimi Eğitimi, 2021, e-course. Available at: <https://cteuzem.adalet.gov.tr/login/index.php> [Accessed on 13.12.2021].

Majumder, A. Z., Sa, B., Rahman, S. 2019. Teaching and Assessing Critical Thinking and Clinical Reasoning Skills in Medical Education, [Online material] Available at: [https://www.researchgate.net/publication/332259671\\_Teaching\\_and\\_Assessing\\_Critical\\_Thinking\\_and\\_Clinical\\_Reasoning\\_Skills\\_in\\_Medical\\_Education](https://www.researchgate.net/publication/332259671_Teaching_and_Assessing_Critical_Thinking_and_Clinical_Reasoning_Skills_in_Medical_Education) [Accessed on 28.06.2021].

Martinez, L. 2016. Social and emotional learning (SEL). George Lucas Educational Foundation. SEL is Good Teaching. 2016. EDUTOPIA. Georg Lucas Educational Foundation. [Online material] Available at: <https://www.edutopia.org/blog/sel-is-good-teaching-lorea-martinez> [Accessed on 30.12.2021].

McAlpine, M. 2002. Principles of assessment. Glasgow: University of Glasgow, Robert Clark Centre for Technological Education. [Online material] Available at: <http://www.caacentre.ac.uk/dldocs/Bluepaper1.pdf> [Accessed on 26.06.2021].

Messick, S. 1994. Foundations of validity: Meaning and consequences in psychological assessment. *European Journal of Psychological Assessment* 10(1).

Ministry of Justice. Prison service values [Online material] Available at: <https://www.vangla.ee/et/vanglateenistuse-vaartused> [Accessed on 08.06.2021].

moodLearning. teach and consulting company. 2015. Top 5 Benefits of a Blended Learning Platform. [Online material] Available at: <https://blog.moodlearning.com/top-5-benefits-of-a-blended-learning-platform/> [Accessed on 30.12.2021].

National Qualifications Framework (NQF) in Turkey [Online material] Available at: <https://portal.tyc.gov.tr/> [Accessed on 04.06.2021].

National Youth Mental Health Foundation. Face to face vs online learning. [Online material] Available at: <https://headspace.org.au/explore-topics/for-young-people/face-to-face-vs-online-learning/> [Accessed on 30.12.2021].

Nilson L. 2016. Teaching at its best: A research-based resource for college instructors, 4E. John Wiley & Sons.

NSW Government website - Education [Online material] Available at: <https://education.nsw.gov.au/teaching-and-learning/curriculum/key-learning-areas/primary/scope-and-sequences/elements>. [Accessed on 29.12.2021].

Phillips, M. 2014. A Place for Learning: The Physical Environment of Classrooms. [Online material] Available at: <https://www.edutopia.org/blog/the-physical-environment-of-classrooms-mark-phillips> [Accessed on 30.12.2021].

Pilli E. 2009. Väljundipõhine hindamine kõrgkoolis. [Online material] Available at: <http://dspace.ut.ee/bitstream/handle/10062/16496/hindamisraamat.pdf> [Accessed on 18.12.2021].

Pilli, E., Karm, M., Poom-Valickis, K., Pilt, L., Marandi, T. Aktiivõppemeetodid e-õppes. Tartu Ülikool. [Online material] Available at: <https://sisu.ut.ee/aktiivope/uue-%C3%B5ppimist-toetavad-%C3%B5ppemeetodid> [Accessed on 28.12.2021].

Race, P., Brown, S., Smith, B. 2005. 500 Tips on Assessment. London, New York: RoutledgeFalmer.

Research techniques and education. Educational Research Techniques [Online material]

Available at: <https://educationalresearchtechniques.com/2014/06/15/sequence-and-curriculum/> [Accessed on 29.12.2021].

Rutiku, S., Valk, A., Pilli, E., Vanari K. Õppekava arendamise juhendmaterjal. 2009. Sihtasutus Archimedes Programm Primus büroo.

Scanlan, C. L. Assessment, Evaluation, Testing and Grading. [Online material] Available at: [http://www.elegantbrain.com/edu4/classes/readings/depository/TNS\\_560/outcomes/assess\\_eval.pdf](http://www.elegantbrain.com/edu4/classes/readings/depository/TNS_560/outcomes/assess_eval.pdf) [Accessed on 17.12.2021].

Setting Learning Outcomes. [Online material] Available at: <https://teaching.cornell.edu/teaching-resources/designing-your-course/setting-learning-outcomes>. [Accessed on 05.07.2021]

Strategy and Programme of Work 2012-2017. 2013. United Nations Educational Scientific and Cultural Organization. International Bureau of Education. [Online material] Available at: [http://www.ibe.unesco.org/fileadmin/user\\_upload/Publications/Institutional\\_Docs/IBE\\_strategy2012-17\\_eng.pdf](http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Institutional_Docs/IBE_strategy2012-17_eng.pdf) [Accessed on 28.12.2021].

Sutrop, M., Toming, H., Könnussaar, T. 2017. University of Tartu Ethics Centre. [Online material] Available at: [https://www.eetika.ee/sites/default/files/www\\_ut/hea\\_kooli\\_kasiraamat\\_2017.pdf](https://www.eetika.ee/sites/default/files/www_ut/hea_kooli_kasiraamat_2017.pdf) [Accessed on 31.12.2021].

Terminology of European education and training policy. 2nd ed. Luxemburg: Publications Office of the European Union, 2014. DOI: 10.2801/15877. [Online material] Available at: <https://www.cedefop.europa.eu/en/publications-and-resources/publications/4117>. [Accessed on 05.07.2021].

The European Qualifications Framework [Online material] Available at: <https://europa.eu/europass/en/european-qualifications-framework-eqf> [Accessed on 04.06.2021].

Tractenberg, R. E., Lindvall, J. M., Attwood, T.K., Allegra Via. 2020. Guidelines for curriculum and course development in higher education and training. [Online material] Available at: [https://www.researchgate.net/publication/340420688\\_Guidelines\\_for\\_curriculum\\_and\\_course\\_development\\_in\\_higher\\_education\\_and\\_training](https://www.researchgate.net/publication/340420688_Guidelines_for_curriculum_and_course_development_in_higher_education_and_training). [Accessed on 05.07.2021].

Whiteneck, G. G. 2011. CHART (The Craig Handicap Assessment and Reporting Techniques). [Online material] Available at: [https://link.springer.com/referenceworkentry/10.1007%2F978-0-387-79948-3\\_1789#toc](https://link.springer.com/referenceworkentry/10.1007%2F978-0-387-79948-3_1789#toc) [Accessed on 05.07.2021].

Worthen B. R. & Sanders J.R. 1987. *Educational evaluation: Alternative approaches and practical guidelines*. London UK: Longman Group Ltd.

Wulsin, L. R. 2013. Classroom Design - Literature Review. Princeton University, Professor Mung Chian Chair. [Online material] Available at: [https://web.archive.org/web/20150723233153/https://www.princeton.edu/provost/space-programming-plannin/SCCD\\_Final\\_Report\\_Appendix\\_B.pdf](https://web.archive.org/web/20150723233153/https://www.princeton.edu/provost/space-programming-plannin/SCCD_Final_Report_Appendix_B.pdf) [Accessed on 30.12.2021].