

Einike Pilli and Tiia-Triin Truusa

Assessment in professional military education



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ASSESSMENT IN PROFESSIONAL
MILITARY EDUCATION

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Providing and sustaining quality of education is primary objective at the Baltic Defence College. There is a joint effort by faculty and the established system on how we review and prepare educational activities while maintaining best practices. However, regarding the measurement of the quality of education, there is not always transparency or certainty on the relevance or suitability of assessment for gauging learning objectives. Student feedback addresses this issue as one of the most sensitive and emotional topics. This matter is usually more complicated, requiring a review of learning objectives, planned time, or applicability of the assessment method – or some combination of all previously mentioned procedures. In addition, regular personnel rotations and significant changes in curricula create challenges.

Since summer 2020, when I took over the command of the Baltic Defence College, I focused on the systematic professional development of the faculty as the quality of education rests on the professional knowledge, experience, and pedagogical skills of the faculty members. An essential part of the professional development of the faculty is familiarity with the principles and practices of assessment and how to apply them. I thank the authors and contributors for their almost two years of work that went into compiling the first edition of this handbook. The elaborative examples and lessons identified at the College in the past three to four years are especially illuminating. Therefore, the handbook will be utilised and referenced by all faculty members who deal with the preparation and delivery of education. At the same time, education is a continuous process, and the Baltic Defence College is a learning organisation; thus, I would expect active contribution for future editions of the handbook.



Brigadier General Ilmar Tamm
The Commandant of the Baltic Defence College

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FOREWORD

Maidu Allikas, LTC (Lieutenant colonel)
Military Assistant and Head of Commandant's Office
of the Baltic Defence College

What is the purpose, scope, and goal of the handbook?

This publication is a toolbox for assessment in higher and professional military education (PME). It discusses and describes the assessment of learning within the new paradigm of education where assessment methods are viewed as in many ways the key to success – both for educators and students. Assessment is a form of cooperation between the teacher and the student, directed at maximising the learning-teaching process to yield the best possible outcome for the student. It also enhances the quality of PME and, therefore, the military system as a whole.

The handbook is aimed at teachers and students at all levels of PME. We hope that it will help teachers to see assessment as the main driving force behind what is taught and how learning outcomes are achieved. For students, it should provide insights into what is expected of them and how assessment is designed to help them get the most out of their PME studies.

Assessment is the process of gathering information to make informed decisions. Therefore, the goal of this handbook is to support teachers at PME institutions in collecting relevant information and make appropriate assessment decisions in accordance with the learning outcomes.

How is PME assessment connected with a reflective military and battlefield success?

A reflective military looks at itself and its performance critically, often undertakes rigorous training regimes, paradigm shifts and transformations to improve its military competence consistently. Institutional introspection does not mean that military operations will result in unmitigated success. Still, it does mean that a military can learn as an organisation from its mistakes and train itself to avoid them in the future^[1].

Education changes thinking patterns. Military officers who accept this understanding point out that well-educated officers analyse with greater precision and are able to identify creative solutions to unexpected challenges, thus laying the foundation for battlefield success. Military education helps establish the conditions for military success by creating the intellectual architecture to make military operations continually more effective^[2]. That is to say that assessment in PME shapes our way of thinking and acts as a decisive factor in making the reflective military a supportive measure for battlefield success. Therefore, PME institutions have to implement assessment methods in education that will support leaders of future operating environments in gaining an advantage^[3]. Teachers must provide a thorough assessment, which is acceptable evidence that students are achieving learning outcomes in line with the ultimate goal of battlefield success.

Why should the paradigm shift in civilian higher education policy impact assessment in PME?

It is yet to be decided what the next new wave or paradigm shift of the future military will be. Our experience underlines that “revolutions in military affairs” and paradigm shifts come as waves in response to dynamic changes in society. The benefits of reforms in civilian education in conjunction with paradigm shifts need to be harnessed within the PME, giving the military highly qualified leaders.

One of the critical elements of success in PME and the effectiveness of a military organisation is to use modern training and assessment methods. Current and future higher education policy strives to create unlimited learning opportunities for students. To develop a lifelong capacity for multiple thinking^[4] and creativity for sustainable development to meet future global challenges in the 21st century, PME institutions cannot fall by the wayside. There are several indicators for the new learning concept. These include aspects related to student participation, such as promoting student activity so that the student is the more active party in the process. A great deal of learning is taking place in pairs, groups or as teamwork. Creativity is built into the learning process through students being assigned tasks of creating something within the topic and providing the student with different options. The physical classroom layout of the classroom changes frequently, and technology is now a natural part of the process^[5]. All these aspects need to be built into the assessment process.

Assessment in PME directly affects the development of learners' competencies and has an indirect long-term effect on the quality culture of the entire military organisation.

The quality standards for learner-centred learning^[6], and assessment in particular, encourage students to shape the learning process actively. The PME ensures that its programmes, modules, and courses meet predefined academic quality standards and seeks to implement best practices to enhance further the quality of the education provided as part of a continuous improvement process^[7].

What is PME's role in competence-based education and supporting lifelong learning?

Competencies are a combined application of knowledge, attitudes, and other acquired skills used in specific work environments and situations. Competency-based education supports receiving both learning content and transferable skills in an environment that as authentic as possible, reflecting the demands of a military career as to their future job.

All dimensions and components of competencies must be assessed, knowledge, skills, beliefs, and attitudes^[8] connected with learning outcomes and training programme (curriculum) goals. In addition, learners' competences have to be assessed holistically, using appropriate assessment methods and at different levels throughout the learning process.

PME has a significant role in impressing upon students the need for lifelong learning to meet the demands of the contemporary security and defence environment. Assessment is an integral part of forming good lifelong practices of learning and attaining new skills.

Competency assessment needs to be criterion-referenced, personalised, and flexible. A holistic approach recognises that most of the topics within PME training are interrelated and serve as conceptual foundations for other subjects. For example, teaching communication skills throughout the PME programmes stresses communication as an interpersonal competence that lies at the heart of effective military leadership. Communication relates to aspects such as report writing, electronic transmissions, building dialogue within the multicultural faculty community, making public presentations, providing testimony, assuming a command voice, and taking charge of research. Integrating communication skills in such a manner is consistent

with a systems approach; that is, all its parts are arranged to produce a unified whole^[9].

Why should teachers at PME institutions use different assessment methods?

Assessing student learning provides instructors with an opportunity to determine the students' quality of learning and provides students with guidance as to what type of learning and performance is expected. Assessment methods provide for different learning outcomes. Teachers also assess knowledge and understanding that goes beyond simple facts. Students need to solve problems that require them to adapt their knowledge and transfer it to a new context^[10]. Assessment of these complex skills calls for more varied assessment methods.

To sum up, PME is undergoing a paradigm shift in teaching. This handbook focuses on assessment as a starting point for planning desired learning outcomes and explains what can be measured by different methods and how best to employ them. In doing so, teachers in a PME organisation will collectively enhance quality assurance in PME.

We hope you will use the guidelines in this handbook to make assessment an integral part of teaching and learning for PME teachers.

If used holistically, this handbook can unlock maximum effectiveness in teaching and learning to ensure quality in PME and meet stakeholders' expectations.

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- [2] Toronto, Nathan W. (2018). *How Militaries Learn: Human Capital, Military Education, and Battlefield Effectiveness*, Lexington Books, p 3.
- [3] MCDC Future Leadership, 2020.
- [4] Multiple thinking represents the ability to think broadly and solve problems with multiple or various perspectives in a changing context full of uncertainties and ambiguities.

The context for human development is always multiple and complex, including technological, economic, social, political, cultural, and learning aspects. In such a multiple context, the classification of human nature can

be correspondingly contextualised by a typology composed of technological person, economic person, social person, political person, cultural person, and learning person representing the multiplicity of human nature in the 21st century. Cheng, Y.C. (2019). *Paradigm Shift in Education: Towards the Third Wave of Effectiveness* (1st ed.). Routledge, p. 26–27.

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DEFINITIONS

(adapted from *Outcome-based Assessment in Higher Education*
by Einike Pilli)

Assessment of learning outcomes, including self-assessment, is part of the learning process. The idea is to give a fair and impartial assessment of the learner's level of knowledge and acquisition of skills by measuring these against certain assessment criteria according to the learning outcomes described in the curriculum. Attitudes are generally not assessed. However, attitudes are important in military education, and therefore these need to be assessed, albeit through action/behaviour. This book focuses predominantly on assessment of knowledge and skills. 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.

An outcome-based curriculum is a plan for the substantive, temporal and organisational design of targeted learning activities structured with the focus on the learner. The curriculum defines the objectives of the education to be provided, including the expected learning outcomes, the standard period and volume of study, the conditions for starting study, the list and volumes of modules, brief descriptions and options and conditions, specialisation opportunities and requirements for completing studies. The curriculum is formalised as an official document.

Learning outcomes are knowledge, skills and attitudes acquired as a result of learning or sets of such knowledge, skills and attitudes (competencies), the existence and/or level of achievement of which can be proved 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.

A **module** is a unit of content based on the learning outcomes of a curriculum. It groups subjects or other study content into a goal-oriented set.

An **assessment method** is a way of proving the acquisition of knowledge and skills, which taken together form competences. The choice of assessment method must be based on the learning outcomes to be assessed. An assessment method has assessment criteria.

Assessment criteria describe the expected level and scope of knowledge and skills to be demonstrated by the assessment method. Assessment criteria are formulated on the basis of learning outcomes, but in much greater detail. Assessment criteria are divided into grade and threshold criteria.

RPL – the Recognition of Prior Learning and work experience – is a process by which a competent authority assesses the applicant’s competency based on defined criteria, in terms of how well their knowledge, skills and attitudes align with the learning outcomes in an educational institution’s admission requirements, curriculum or part(s) thereof, with the competency requirements in a professional standard. If the applicant’s competencies meet these requirements, they are counted toward fulfilling the admission requirements, completing a curriculum or awarding certification in a profession.

Professional Military Education (PME) is the systematic instruction of professionals in subjects enhancing their knowledge of the science and art of war. It provides and develops the skills, knowledge, understanding and appreciation of leaders in the nation’s armed forces.

Competency assessment is criterion-referenced, personalised and flexible, as a comprehensive approach recognises that most of the topics within PME training are interrelated and serve as conceptual foundations for other subjects. For example, when addressing the importance of effective communication skills (interpersonal competencies) – whether in the form of verbal, nonverbal, or written transactions – rather than addressing it as a stand-alone topic, it is emphasised that communication lies at the heart of effective military leadership work and is integrated throughout PME programmes (curriculums) as it relates to report writing, electronic transmissions, building dialogue within the multicultural faculty community, making public presentations, providing testimony, assuming a command voice, taking charge of research, describes this process as a systems approach, that is, one in which all its parts are arranged in a manner that produces a unified whole.

CHAPTER 1. ASSESSMENT IN HIGHER AND PROFESSIONAL MILITARY EDUCATION

In one way or another, assessment has always been part of learning. For the last two decades, the learning process has been described as outcome-based and learner-centred, although this, too, is actually a much older phenomenon. Even when goals were formally set for teachers in the past, there was still an interest in student achievement and performance. After all, the outcome of student's learning is central to the learning process. The achievement of these outcomes serves the whole learning process, and it is measured by assessment.

Assessment is complicated by the fact that while learned material may be clear when it is fresh, in the long run, it is not always retained by the mind or muscles. It can also be the other way around – certain things cannot be recalled at an examination, but in the context of a practical training or other work environment, it is clear that in fact the student *has* mastered and is applying the knowledge. In Estonia there is a tendency for so-called C students among boys to do better in real life than girls who got the highest marks in school. Why is that? There is certainly much more to it than just gender. “Why carry out assessment at all if one's grades aren't a measure of real ability?” some may ask.

In military education, of course, assessment has a much clearer, more specific function, just as the environment in which the knowledge will be applied is likewise better defined. Therefore, the content of the learned material and learning outcomes are defined more precisely as well. But even here, there are a number of questions about assessment that need to be negotiated and planned. That is why this book has three parts. The first deals with the principles, functions and practices of assessment. In the second chapter, we introduce different assessment methods. The third provides concrete examples of how to assess modules comprehensively.

1. Principles and practices of assessment

In Chapter 1, we will lay the foundation for the second and third chapter. We describe the nature of assessment, and the assessment planning process and principles. The main questions in this chapter are “why” and “how” to assess. We also provide a checklist of questions for analysing an already planned assessment. The assessment quality criteria provide a “mirror” on the basis of which the achievement can be deemed satisfactory or adjustments made.

1.1 The nature, purpose and principles of assessment

The main purpose of assessment in the learning process is to provide feedback on the learning outcomes and effectiveness of the learner’s learning process and thereby increase the effectiveness of learning.

Of course, assessment is by nature much broader than deciding on a letter or number grade or deciding whether a particular goal has been achieved. In the learning process, the main task of assessment is to gauge how well the learner’s competencies align with the goals set in the curriculum.

Before reading further, think about the principles that are important for you in assessment.

The following central principles are important when assessing the learning outcomes:

- Learners are not compared with each other; instead their competencies are compared with the learning outcomes in the curriculum. In didactic language, this means that it is a criterion-referenced assessment as opposed to comparative assessment such as benchmarking or grading on a curve.
- Assessment is more effective if the student is involved in setting learning goals and assessment. They can analyse their learning through self-assessment and reciprocal assessment.
- The assessment of a given module is carried out holistically, i.e., it is not assessed one learning outcome at a time. Instead, it looks for the optimal number of assessment methods or the relevant assessment methods, which are needed so that all learning outcomes will be assessed.

- The objectivity of the assessment is ensured by proceeding from the assessment criteria, which are known for students in advance and are the same for everyone.
- In order to obtain a positive grade, the threshold criteria set at the level of learning outcomes must be met or exceeded. The lower “bar” in the case of both undifferentiated and differentiated assessment is in the same position.
- Assessment takes place using appropriate assessment methods that are related to learning outcome verbs. For example, if the learning outcome says “analyses”, it needs a different assessment method than if it says “knows”.
- Summative assessment methods are described in the syllabus. In addition to summative assessment, formative assessment may be used, which does not affect the final result and which is not set out in the syllabus.

We describe these principles in greater detail in the following subsections of Chapter 1.

1.2 Assessment as the key to the quality of the learning process

It is no exaggeration to say that assessment is the learner’s actual curriculum. This idea is illustrated by the following diagram:

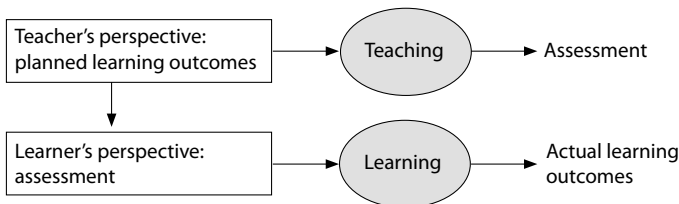


FIGURE 1. The meaning of assessment from the learner’s perspective¹.

From this diagram, it can be concluded that a student’s learning is guided by assessment. It all supports the conclusion that the effectiveness and efficacy of the learning process can be influenced the most precisely through assessment. The quality of learning is thus directly linked to assessment.

¹ Adapted from Biggs, J.B. & Tang, C. (2007). *Teaching for Quality Learning at University*. (3rd Ed.). Maidenhead: McGraw Hill Education & Open University Press and https://www.heacademy.ac.uk/sites/default/files/resources/id477_aligning_teaching_for_constructing_learning.pdf.

In order for the teacher's perspective described in the diagram – i.e., the learning outcomes and the academic results achieved by the student – to overlap as much as possible, the study process must strive toward a principle called constructive alignment.

In the curriculum view, two types of alignment can be distinguished:

1. Vertical alignment occurs in the curriculum between different levels – curriculum, modules, subjects, topics, etc. In other words, vertical alignment means that the lower levels add up to the higher levels, so that everything that is ultimately intended will be achieved. Vertical alignment is an important tool in curriculum planning.
2. Horizontal alignment, on the other hand, occurs within a single module, on one level. The main criterion of horizontal alignment is that the planned learning outcomes are actually assessed, and achievement of the learning outcomes is supported by educational methods, the content learned, learning environment and teaching aids. An important consideration for horizontal alignment is that students must have relevant prior knowledge and the planned study time must be optimal for acquiring the planned material.

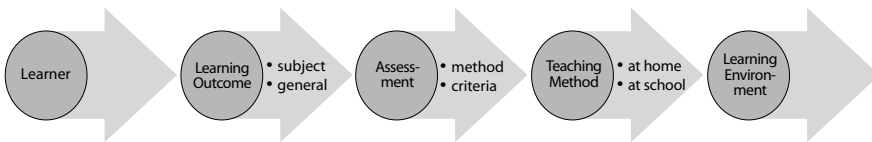


FIGURE 2. Horizontal alignment

The diagram above is not necessarily complete, as a number of other factors may prove to be components of alignment as well, but the main ones are shown. Let us touch on them one by one.

- The learner always enters the learning process with some prior knowledge, previous experience and sometimes also preconceived notions. It depends on the situation and the specific learner whether these will interfere with or support learning. In order to achieve greater alignment, the prerequisites are sometimes articulated upon entering a module, or a test is carried out.
- Learning outcomes usually include both subject-based and general competencies. The learning process is also significantly influenced by

learning outcome verbs (for example, apply, know, analyse). For example, if at the end of the module, the student is expected to apply some skill, this requires different assessment and learning methods compared to the assumption that the student knows and analyses something.

- Assessment has a direct link to learning outcomes. Output-based logic assumes that all learning outcomes will be assessed. As the learning outcomes are consensually described at the basic level, failure to achieve some of them means that the learner has not mastered the material at the basic level. A distinction is made between assessment methods and assessment criteria, which provide further clarification as to the implementation of the assessment methods. Ordinarily, an assessment method has an assessment task that provides additional detail. In the case of ideal alignment, generalised assessment criteria aligned with the assessment method add up to learning outcomes.
- In the case of an aligned module, the teaching methods are aligned with the assessment, which in turn ties them to the learning outcomes. As the planning of learning processes usually involves the difficult question of what to include and what to exclude (rarely is the volume of study enough to cover all possibilities), aligning teaching methods with the assessment helps to plan the optimum learning process. There is another aspect to teaching methods – not everything happens in school so learners do part in contact with the teacher, i.e., at school, and the other part independently, i.e., at home. Student-centred design also provides an opportunity to seamlessly link assessment methods to the student's view of the learning process flow.
- The learning environment contains all the aspects that contribute to the success of the learning process. These can be web platforms, training fields, simulation centres and the like.

*Analyse one of the modules you teach in terms of horizontal alignment.
What needs better alignment?*

Another component of horizontal alignment comes into play when a module is taught and assessed by several teachers. Here, in order to achieve alignment between components, it is vital for everyone to plan their parts together, not separately. A particularly clear focus for the module comes when teachers jointly formulate the central goal of the module. In this case, there is simply no good alternative to cooperation. In the same vein, it is

good to conduct a “post-mortem” to assess how things went after the fact. What problem areas emerged in students’ learning? What shortcomings came up in collaboration? How can assessment be better linked to other parts of the learning process? This allows one to learn from each other and in many cases it makes the work and development activities more rewarding.

Assessment is a key component of horizontal alignment – it can even be called a “bridgehead”. The link between assessment and learning outcomes is the foundation on which the alignment of the rest of the learning process rests. That is why we say that assessment is the key to the quality of the rest of the learning process. It ensures that the planned learning outcomes are indeed acquired by the learners, i.e., that they are the actual results of learning.

Assessment in military education is also related to the overall quality management of an organisation. Important components here are the alignment between stakeholder expectations and assessments; meeting employers’ expectations both today and in the medium term in 5–10 years; an assessment system applied to and supporting the work environment; the competency of the assessors in metacognitive and learning-related techniques, which create a comprehensive, authentic overview of learners’ perspectives in the work environment for up to 10 years into the future.

In military education, it is important that assessment methods set an example for students, indicating the direction for future organisational development and quality assurance. When military leaders are guided by a modern approach to learning in designing assessment, this can have a fairly direct impact on the thinking and organisational culture of the leaders, including how new knowledge is brought into and consolidated in military education.

Proficiency in the assessment system also supports management of changes in the military organisation. If the organisation understands the need for assessment, it can also be used to assess activities. This is only one step towards innovative development of these activities. When innovations are based on an assessment – e.g., new training or combat operating procedures, innovative leadership techniques, the development of countermeasures against new military threats, the initiation of cooperation with new multi-ethnic target groups or other aspects – they have a more solid underpinning and rationale for implementation. Thus, assessment is important not only for the learning process, but for the whole organisational culture.

Now, let us turn to more specific quality indicators and practical implementation issues related to assessment.

1.3 Quality and implementation of assessment

So we have established that assessment is important, and it is also important that it be done well, thoughtfully and purposefully. First, we will set out some quality criteria for assessment itself. They can be used to analyse an existing assessment and plan changes if necessary.

1.3.1. Assessment quality indicators

Before moving on to more specific quality indicators, we should mention one important principle that characterises a well-planned assessment of a module. On the one hand, from the perspective of both alignment and purposefulness, it is important that all learning outcomes are assessed. There is a widespread misconception that learning outcomes must be assessed one by one. In fact, the best results are achieved when learning outcomes can be assessed holistically, because life itself is inherently intertwined. Thus, the first quality indicator is that learning outcomes should be assessed in an integrative manner.

Moreover, a high-quality assessment is authentic, valid and holistic. We will discuss each of these three adjectives in more detail.

- Authentic. Authenticity in assessment is expressed when it imitates as closely as possible how the learned content is used in a real professional context. This usually also means that the assessment method is quite complex. However, achieving authenticity is not always justified or feasible in the learning process. For example, if you compare the solution for a battle situation using a graphic representation or physical terrain using real people, the second one is definitely more valid, but at the same time it may not be possible or practical in the learning process. However, when it comes to choosing whether to conduct a case study of a battle situation with real historical data in the form of a diagram, or to discuss what possibilities there are to respond in a battle in the first place, the former is certainly more authentic. Thus, in the case of the authenticity of the assessment, the best optimal solution must be sought.
- Valid. An assessment is valid when the method assesses what it needs to assess, i.e., it is suited to the purpose. The alignment of the chosen assessment method with the learning outcomes has determining importance for validity. Convenience or speed can be fatal to validity. For example, a test is much easier to assess than an oral interview. Yet a test provides feedback only on relatively superficial knowledge of the facts.

An interview, on the other hand, shows the student can discourse on the subject as well as whether they have learned the facts necessary for the discussion. However, even a more complex and time-consuming assessment method is not always the best in terms of validity. It is just that learning outcomes, and especially learning outcome verbs, must be taken into account.

- **Holistic.** If an assessment is holistic, that means the most important and necessary competencies are at the centre. Without having acquired these competencies, it is not possible for a learner to receive a positive assessment result. For example, if confidentiality is the most important in certain roles, it is not enough that a conducted interview was otherwise adept and substantive. If the learner errs in the most important parts, it will affect the entire endeavour.

When assessing the quality of assessment, it is certainly important to ask whether it motivates the learner to improve their results and get even better results in the future. This presupposes that the learner can use feedback to reinforce what they succeeded in, and correct what was not successful, and that they have enough information and support to make the corrections. In addition, the assessment must ensure that the learner's mindset is sufficiently positive, and they have enough self-confidence to undertake the change.

In everything, including improving assessment results, motivation is ensured by two aspects:

1. The expectation of better performance and the input needed to perform better.
2. Value ascribed to the activity that is desired to be performed better.

If the feedback from an authentic and valid assessment method makes the learner want to perform the most important things better and holistically, the assessment can be considered successful and therefore of high quality.

1.3.2. How to choose assessment methods?

Now that we have discussed the quality of assessment, it is time to turn to the assessment planning process. Sometimes teachers are handed module programmes with assessment planned in it. Depending on the situation and the need, they can opt to improve them or not. Planning an assessment well-aligned with learning outcomes is however undoubtedly one of the techniques used by teachers who know their field well.

There are two approaches to planning:

1. One is to start by aligning learning outcomes and assessment methods and then develop assessment criteria that are suitable for the assessment methods.
2. The other is to start by describing the assessment criteria stemming from the learning outcomes and then divide them up between various assessment methods.

In both cases, it must be ensured that there is a “full circle”, as shown in the figure below.

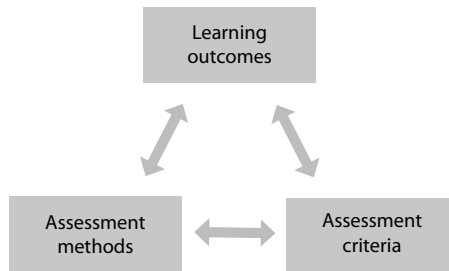


FIGURE 3. Alignment of learning outcomes and assessment.

This guide proceeds from the first approach. In the Estonian context, the second approach is used mainly in vocational education and where vocational standards prescribe very precisely the behavioural indicators for various competencies. We will thus first take a look at assessment methods and their selection.

What are assessment methods and how to name them?

An assessment method is a method of assessing the learner’s knowledge, skills and attitudes expressed in behaviour. In this guide, assessment methods will be discussed in more detail in Chapter 2. Here we will mention only the main ones. Assessment methods are inherently related to the learning outcomes whose acquisition they measure. The following table is merely illustrative, but helps to understand how assessment methods are related to the learning outcome verbs.

TABLE 1. Connection between learning outcome verbs and assessment methods.

<i>Learning outcome verbs</i>	<i>Assessment methods</i>
Knows, explains, names	Test, written work, presentation, oral interview, staff paper
Understands, has an overview	Summary, annotated bibliography, abstract, poster presentation, oral interview
Analyses, associates	Case study, assessment, learning portfolio with self-analysis, research paper, staff paper
Applies	Practical training, practical training diary, report, poster presentation
Demonstrates (skill)	Simulation, demonstration, practical training, exercise
Solves problems	Project, point paper, case study, simulation
Communicates	Role play, simulation, presentation
Puts theory into practice	Practical training report with practical training diary, practical exercise
Plans/performs/analyses	Project with report, research paper, portfolio
Analyses and collaborates	syndicate or small group work, staff paper, team project, analyses
Analyses one's own development during the learning process	Portfolio
...	

*Continue this table with the learning outcome verbs from your modules.
Think about which assessment method is suitable for those particular modules.*

In the case of assessment methods, a distinction can be made between **simple and composite forms**. If one assessment method contains several parts (e.g., a portfolio or project) or is multi-stage (e.g., outline or summary of literature and its presentation), it is a composite method. This distinction between assessment methods is important when assessment criteria are added, which we will discuss in the next sub-topic.

Assessment methods and learning outcome verbs

The most important indicator for assessment methods is learning outcome verbs. The first step in planning assessment is to give the learning outcomes a “hard look” and decide the minimum number of assessment methods needed to assess those learning outcomes. The more learning outcomes are assessed by one assessment method, the more comprehensive and holistic the assessment process will be. Learning outcome verbs express cognitive

levels on different tiers – for example, knowing something is at a lower tier than understanding it. Knowledge can be assessed with a multiple-choice test, but a multiple-choice test cannot assess understanding. However, if the goal is for the learner to analyse or pass judgment on something, appropriate assessment methods are required – a case study, problem-solving, essay, etc.

A different distinction is made between practical assessment methods. In this case, it is worth examining the learning outcomes for whether the expectation is for a rote or creative solution, whether the action is to be undertaken alone or together with others, whether the learner has to obey orders or take responsibility for themselves and perhaps for others as well. Whatever the nuances, well-selected output verbs provide an indicator, and good assessment and teaching methods make goals achievable. Table 1 above provides an illustration of this way of thinking.

Integration within assessment methods

The assessment of one module usually requires at least two assessment methods – one of a more theoretical nature, the other practical. But each module is unique. It is important to remember that it is precisely the integration taking place in the assessment that reinforces a holistic understanding of the learned material. Therefore, in a multi-teacher module, care must be taken to ensure that each component, and moreover each learning outcome, is not assessed separately. Even if the learning process is divided among different teachers and they want to use “smaller” assessment methods to assess their own part, common assessment methods should be planned together. Otherwise, there will essentially just be small, stand-alone modules. Since the human brain has the ability to store what has been learned in “compartments” if the learning takes place in “compartments of parts of a module”, a separate effort must be made to form one whole.

In the case of integrated assessment methods in one module, it is a good idea to agree in advance on what is the most important result, i.e., the backbone and focus, which all teachers contribute to, and what is expected of learners. It is also worthwhile to design the assessment methods with the greatest weight and volume around that backbone. As time is always limited, prioritisation in teaching, including in assessment, is indispensable.

Timing of assessment methods

In terms of learning efficacy, it is good to plan assessment as follows:

- Larger assessment methods are left toward the end of the module, but not at the very end. In this way, it is possible to correct the mistakes made in them, and relearning can take place.
- It is also worth planning small parts of assessment methods before larger assessment methods, so that these can be used to practise preparing for a larger assessment method.
- The practical side does not always have to follow the theoretical side; it can be the other way around. The practical can also proceed in parallel with the theoretical. It is important that strong associations are established between the theoretical and the practical.
- A separate topic is how to link students' independent study and assessment methods. Logically enough, large-scale independent assignments are also an assessment method. This link should be clearly visible in the module plan, especially in the learning process flow.

Differentiated or undifferentiated assessment?

The assessment of a module can be differentiated or undifferentiated, depending on the educational institution, the level of study and the curriculum. Sometimes it is up to the teachers who carry out the module to decide, but often in PME the learning outcomes are set by the institution. Some practical aspects have a tendency of being difficult to assess in a differentiated manner. At the same time, learners find a differentiated assessment more motivating and work harder for it. The dilemma of combining these two sides is that often practical activities are more important than theoretical knowledge as an assessment method when it comes to functioning in a work environment. Thus, there is a risk that the “bigger bonus” will be distributed in the form of a differentiated assessment to “less important” competencies. It is not possible to solve this dilemma directly, but at least you can be aware of it and finesse it by taking a smart approach.

Even if the module needs to be assessed in a differentiated manner, teachers can use some undifferentiated assessment methods within it. It also means less of an assessment workload, as the fact that a threshold has been crossed is easier to analyse and provide feedback on – easier than saying how well or with what room for improvement a threshold has been crossed. As learners have, as mentioned, the tendency to put more value on differentiated assessment methods than undifferentiated ones, it is a good idea

to use differentiated assessment for larger-scale, more important and integrated assessment methods. In this way, assessment can also be used effectively to motivate learning.

What is your main practice – do you use mainly differentiated or undifferentiated assessment? What is your reasoning behind this choice?

One other important comment – only summative assessment methods are planned as assessment methods, i.e., ones that must be performed in any case and which impact the final grade. In the case of a combination of differentiated and undifferentiated assessment methods in a module that is to be assessed using the differentiated approach, the final grade for the module should be accompanied by the names of all of the methods with the comment added that undifferentiated assessment methods must be carried out at least at the threshold level, while the grade is determined by the differentiated assessment methods. If there are several grading (differentiated) methods, it is possible to give them equal weight in determining the grade or to assign their weights.

The selection of assessment methods also includes their evaluation according to the quality criteria provided in sub-topic 1.3.1 – they are authentic and valid, they allow a holistic assessment focusing on the most important expected result of the module. If these questions can be answered in the affirmative, it is time to turn to the development of assessment criteria.

1.3.3. How to develop assessment criteria?

Once the assessment methods have been selected, assessment criteria must be added to them. Whether it is a differentiated or undifferentiated assessment, it is a good idea to start with the threshold level. As the learning outcomes are also agreed at the threshold or basic level, in describing them in more detail, they must be integrated with the corresponding assessment method. In the case of differentiated assessment, higher scoring criteria must then be added to the threshold-level assessment criteria, on the basis of which positive results at different levels must be differentiated.

If the assessment method is in simple form, it is easier. However, in the case of a composite form, it is best to differentiate the assessment criteria according to the simple forms of the assessment method. For example, if the

student has to complete a practical exercise and then give an explanation, it is important to understand which assessment criteria are for the exercise and which are for the explanation.

Broadly speaking, assessment methods can be seen from two perspectives – one group of methods assess the process, and the other group of methods assess the outcome. Sometimes the composite methods can be both side by side. Depending on which type of assessment method it is, the assessment criteria can also vary – some describe the process, others the result. In any case, it is recommended to adapt and refine learning outcomes into assessment criteria. Of course, if the learning outcomes have already been described in great detail, there is no need to refine them too much further – they should just be linked to the assessment methods.

For all assessment criteria, ensure that they also answer the question “how”, not just “what”. Sometimes “how” can also mean “in what context” or “under supervision” or “independently”. In an outcome-based curriculum, assessment criteria are mainly described qualitatively. In some cases, quantitative criteria also have their place (for example, to measure a certain level of physical ability), but since learning outcomes are substantive in nature, assessment criteria should also be substantive.

For example, an assessment criterion may be worded as follows:

- The goals set at the beginning of the project are analysed in the report.
- The analysis lists all the main risk factors in the field.

Sometimes the assessment criteria are already provided under the module. In this case, it is a good idea to divide them up between the module’s assessment methods and to refine their wording pursuant to the method. It should be noted that a single assessment criterion – and likewise a single learning outcome – can be assessed by several assessment methods.

Different techniques can be used to describe the differentiated assessment criteria. For example, it can be said in which way each grade listed in ascending order is better than the previous one. Another option is to describe some of the criteria – the most important ones – at the level of each grade, leaving the other criteria the same at all levels. A third option is to describe all the criteria for all grades. A table or rubric is usually the most convenient way to do this.

In addition to being the basis for summative assessment, assessment criteria play another role – they guide the learner’s learning process, supporting formative assessment during the assessment and at the end, when it is necessary to understand what succeeded and what was not successful. It is precisely feedback based on the assessment criteria that makes an assessment as objective as possible and transforms it into a process that supports learning.

1.3.4. How to assess general competencies?

General competencies are very important for learning and later employment, as confirmed by several studies. It is common for general competencies to be included into the descriptions of learning outcomes. However, these do not often make their way into assessment criteria. If we are convinced that assessment drives learning, then general competencies must also be assessed.

The assessment of general competencies is also impacted by the selection of assessment methods. For example, teamwork cannot be assessed using methods that presume solely individual action. Nor can management and leadership skills be assessed if the assessment methods presume solely following instructions. A practical training course is a very good place for assessing general competencies. For that reason, it is worth making sure when preparing assessment criteria that general competencies will be assessed.

After all, everything that is important deserves to be assessed.

In the education of military leaders, general competencies fall into the following categories in terms of how they are integrated with specialised competencies:

1. Task-oriented competencies, which are divided into technical competencies and management competencies.
2. Relationship-oriented competencies, which are divided into interpersonal competencies and intrapersonal competencies.
3. Change oriented competencies, which are divided into leadership and conceptual competencies.²

² *Söjateadlane* 2020, 14 Säälik, Ermus, Männamaa, Toom, Kasema.

1.3.5. Specific issues related to assessment: self-assessment and peer assessment, assessment of practical training and group work

Not all assessment takes place on the axis of teacher and single learner. The diversification of assessment methods itself reinforces and develops a number of general competencies. In the following, we will discuss four special forms of assessment.

Self-assessment is a key skill for lifelong learning. This is needed to map one's situation and plan for development in many settings. The most common simple method of self-assessment is self-analysis. It is worth using at the end of a portfolio, in project analysis and certainly also in reporting on practical training. As the basis for the self-analysis, it is good to describe, in addition to the given assessment criteria, the learner's own goals, which they can later use to assess themselves. Self-assessment is worth combining with other forms of feedback – e.g., an assessment by a teacher or supervisor.

The self-assessment process works best when the learner has some kind of standard or framework along with assessment criteria against which they assess compliance. It is also definitely worth having the student also formulate the main areas for development and the ways to move towards them. Self-formulated goals and plans are always more efficacious than those worded by someone else.

Peer assessment is where students assess each other. Here, too, the best result is achieved if the assessment criteria are clear. Peer assessment is also well-suited to online environments, where, for example, learners post their work and read and evaluate the work of at least one peer. As peer assessment may not be as objective as the teacher's assessment, it should not be given very much weight in the final grade for the module. At the same time, if the student has to provide reasoning for their position, it can approach an objective situation quite closely.

Peer review is also well suited for feedback on practical performance and – why not – oral presentation. Peer assessment can also be used, for example, in practical training coupled with self-assessment and supervisor's assessment, as a result of which the learner receives feedback from several perspectives, thus approaching the 360-degree feedback technique.

This multi-level perspective makes learners observe others closely because developmentally, others' mistakes are noticed before one's own, and it may happen that the student begins to see their own performance from a whole new perspective. For a peer assessment to be successful, it is good

to give learners some guidance beforehand about what kind of feedback is most helpful. We will discuss this a little later in this guide.

Assessing group performance is undoubtedly more difficult than assessing an individual learner. However, there are situations where this is done and where it is a justifiably good solution. These include assessment methods where teamwork flow is more important than individual performance, or where the work is so massive that it is not possible to do it alone.

In the case of undifferentiated assessment, it is fairly straightforward if the result meets the assessment criteria, in the case of a differentiated assessment, it is common for all participants in the same group to receive the same grade. The danger in assessing a group in the same way is that not everyone has made the same contribution to performance. In this case, a discussion between group members can be used, where everyone's contributions are agreed upon. If someone has not contributed at all, they will not receive a positive result.

Another option is for all group members to provide written feedback on the contributions made by others and themselves. It is probable that the result overall for the group will be quite uniform. If the group members know this in advance, it is likely that they will exert more effort in making their contribution. However, as such differentiation reduces the group's overall responsibility for the joint performance, it is not usually a good solution.

Of course, there is still another possibility that, especially in the case of an activity-based assessment method monitored by the teacher, the teacher can give individual feedback to the group members. The teacher provides this in addition to the summative assessment and the feedback received by the group as a whole. If more observers and evaluators are used, the feedback will be even broader and more varied. Of course, it is only worth doing this in the case of assessment methods that consolidate a longer, weightier period of study.

Assessment of practical training is more multifaceted than usual, because there is an additional party involved: the practical training supervisor. A special feature of practical training is the long-term nature of the face-to-face teacher-student relationship, which allows to give more feedback to the learner's general competencies. And because assessment of a practical training is the most authentic part of the learning process, it allows for diagnostic assessment, among other things.

The primary peculiarity of military practical training is that learners are not sent to practise in real-life activity, i.e., in a combat situation. With certain caveats, practical training can be considered to include longer cooperation exercises, but above all it encompasses specialised practical training in military units. For example, service training at the Estonian Military Academy takes place in a military unit, where a cadet is assigned a supervisor to whom the educational institution provides both assessment instructions and assessment rubrics. For the purposes of the terminological framework of this book, the assessment guide equals the assessment method + the assessment task. A cadet can also be assessed by the soldiers with whom the cadet practises as a superior officer. The practical training is assessed in an undifferentiated manner on the basis of a portfolio compiled by the cadet, part of which is self-reflection.

When evaluating practical training, it is important that not only the supervisors but also the learners themselves know the assessment tasks and the assessment criteria. Therefore, they must be clearly spelled out for all parties. Practical training is also the place where a learner can set goals for themselves and later assess their fulfilment. In many educational institutions, they are set forth in the tripartite practical training agreement.

In the following, we give a few options and ideas for assessment of practical training. First, doing something does not mean understanding it. Therefore, reflection must go hand in hand with practical skills. Whether the reflection is an explanation and reasoning, a later analysis of one's actions or something else, it is important that the acquired learning integrate action and thought. This ensures adaptive understanding and the subsequent transfer of operating principles to other environments.

Secondly, practical training is a phase where the student is still in training. Therefore, the learner must be sufficiently stress-free during the process to experiment with different opportunities and acquire different skills at their own pace. It is important that, by the end of the practical training, all the most important skills have been acquired and demonstrated.

As mentioned above, practical training is also quite good at enabling assessment of general competencies. This can be done primarily through activities. General competencies should be provided with feedback and assessed using assessment criteria. It is even better to use a form of 360-degree feedback when evaluating this side of things. This means that the student, the school and the practical training supervisors as well as fellow trainees, express their opinion about the learner and the learner's actions. It

is difficult to overestimate the importance of general competencies in the work environment.

Practical training is usually assessed in an undifferentiated manner, but it should certainly be accompanied by mentioning the most specific possible areas that require development, and perhaps also recommendations on what further development should be pursued.

1.4 The assessment process in different forms of study

The nature and structure of the learning process is constantly changing. The previous model of “learning on-site – learning at home – assessment of what was learned” has been replaced by various hybrid forms. It involves both learning and presenting what has been learned through assessment, both at home and on location. In addition to the home, a third learning environment has emerged – online. Depending on the form of learning, online learning can be in contact with the teacher and fellow learners (synchronous), or it can be an independent learning environment (asynchronous). In many cases, it is both. As there are many variations, in the following we offer a way of planning assessment in a diverse-form learning process and expressing it to the student with sufficient clarity.

It is clear to the learner if they see the learning and assessment process as a steady chronological flow. This presupposes that a single timeline is planned for learning both in a group and independently, in real life and virtually, and for demonstrating learning through assessment. Teaching methods are based on assessment methods (helping to prepare for assessment), independent work can mean preparing to participate in the learning process or even carrying out some assessment method instead. Just to keep it from being too easy, the learning and assessment process of one module is sometimes divided among several teachers.

One recommended sequence for the structuring of the module description is as follows (the parts can be moved around freely):

- Name of the module
- Teachers, including the teacher in charge
- Volume of study with the number of hours of study for the learner (including how many face-to-face lessons there are – both in the classroom and in the practical training environment, how much is done independently)

- Learning outcomes of the module
- Assessment

<i>Deadline</i>	<i>Assessment methods (differentiated or undifferentiated)</i>	<i>Assessment criteria</i>
..		
..		

- Description of the formation of the final grade of the module
- Flow of the learning process

<i>Activities before face-to-face lesson along with deadline</i>	<i>Face-to-face lesson teaching and assessment methods and substantive topics</i>	<i>Teacher and times of face-to-face lessons</i>
..		
..		

Comments:

- This table can be applied better in the case of part-time study where on-site learning is grouped into thematic clusters and the independent study taking place between meetings needs to be specifically and clearly described.
- When describing the formation of the final grade of the module, all the assessment methods in the previous table must be mentioned and, if necessary, the weighting of the assessment methods must be indicated.
- It is good to present teaching methods (the most important ones) together with content topics. There is an increasing understanding that not only what is learned, but also how it is learned, needs to be carefully thought through in order for learning outcomes to be achieved.
- Teaching methods should be derived as much as possible from assessment methods. If the learner is expected to be able to explain something, he or she must be able to practice explaining as part of the learning process.
- In the case of large and complex assessment methods, it is a good idea to “cut” them up so that the learner can practise smaller parts and get feedback on them beforehand.
- In the flow of the learning process, assessment methods can be set out in the tables of methods used independently and in face-to-face learning. The same applies if independent study takes place in a web environment.

In the learning process of a module ordered in such a sequence, the learner will have a good, clear overview of what is expected of them, when and how. And although planning will take more work than before, the collaboration between teachers will become clearer. By arranging it into a single sequence, it is also easier to monitor the functioning of the horizontal alignment between learning outcomes, assessment and learning.

Of course, there are other forms of representing the learning process and the assessment taking place in the learning process in a way that is understandable and clear to the learner. The main principle to follow is always to describe the learning process from the perspective of the learner, not the teacher. This approach requires the teachers doing the planning to mentally trade places with the student. Mastering this technique will help to transform the whole educational paradigm, so it's worth the effort.

1.5 Formative assessment

Formative assessment is a term that is widely used but not always clearly understood. Sometimes there is a tendency to confuse formative assessment with the learning process as a whole. In this guide, however, we start from the position that formative assessment is a narrower and more knowledge-based way of giving feedback to a learner than simply teaching a student.

Perhaps the definition of formative assessment is complicated by the fact that it is not described in the module plans and is not usually pre-planned in any other way. In addition, formative comments often accompany a summative assessment. Self-assessment and peer assessments of summative assessment methods are also carried out mainly in the form of formative assessment. It is therefore not surprising that formative assessment can raise more questions than usual in an otherwise clearly defined military education institution.

In addition to summative assessment, formative assessment is one of the two main functions of assessment. If summative assessment is *assessment OF learning*, then formative assessment is *assessment FOR learning*. The first is retrospective in nature; the second is forward-looking.

Formative assessment can be seen as a separate phenomenon if:

- It does not affect the final grade of the module.
- It is followed by the learner having the opportunity to further improve their work.

- It is based on assessment criteria (the same ones as for the summative assessment).
- It is qualitative in nature, showing successes and areas for development as substantively as possible and, where necessary, providing input and assistance to support further development.

Traditionally, it has been emphasised that formative assessment should reinforce successes and also pose challenges and that these should be balanced. Lately, however, it has been emphasised that the two sides do not always have to be together. Sometimes feedback can be used simply to encourage and acknowledge. At other times, it can be used to guide the learner and point out development. Finally, feedback can be used for giving an assessment, on the basis of which the learner can get an idea about their ability to make progress in the profession and their prospects, or how they will progress in their studies if they continue at their current rate.

In the case of the latter, we can also see formative assessment as having a diagnostic function. (Of course, this does not mean that it may not sometimes be among the functions of summative assessment.) Diagnostic assessment is similarly based on assessment criteria, ideally includes an assessment of general competencies, and is carried out in a clear and transparent manner.

At the same time, those experienced in conducting assessments may notice intuitively perceived components that justify giving greater encouragement or warning to the learner. They are especially valuable when several people involved in the assessment perceive them similarly. However, as these components are difficult to justify empirically, they should also be presented more carefully. The best way is to present such realisations as questions that the learner then either confirms or refutes with their actions or answers.

Finally, the learning process itself is diagnostic in nature. The more authentic the assessment, the more it includes assessment of general competencies, the more diverse the feedback given to practical training and practical exercises, and the more diagnostic significance it has. Finally, all of these activities help the learner to understand their strengths and areas for development. Precisely this is the important role that the assessment's formative and summative functions fulfil together.

1.6 Assessing prior learning and work experience

The learner- and learning-centred way of thinking becomes even more visible in the process of taking into account prior learning and work experience, i.e., RPL. RPL assessment is the process of assessing what the learner has learned elsewhere and in other ways. At its heart is a comparison of the learning outcomes of the modules in the curriculum against the competencies acquired by the learner. All of the other processes follow from this principle that we will discuss below stem from this principle.

There are two types of RPL assessment:

- Assessment on the basis of an educational document.
- Assessment based on self-analysis.

In the case of recognition of previous formal learning, this is generally substantiated by both documents and by the differentiated or undifferentiated grade given. It is possible to make a decision on the basis of these documents and this is why we call it educational document based assessment. In most cases, such an assessment of RPL presupposes a substantive comparison of previous formal learning with the module whose recognition is sought. In the case of a differentiated assessment, the grade may even be “transferred”.

Still, some problems may come up here. For example, the academic performance may have been from some time ago, so it is not certain if it is still valid. Or learning outcomes may be absent in the documentation of prior learning, and thus no substantive comparison is possible. Sometimes the study volume is different, or there is a different manner of recognising study volume. Sometimes problems arise because the context (educational institution) of prior formal learning is not as reliable as is the institution where performance is being assessed by RPL. In the case of all such and similar problems, the person conducting the RPL assessment is primarily responsible for the substantive comparability between the learning outcomes of the module being recognised and prior formal learning. Minor, technical differences are not all-important. Evaluators must also ask whether the assessment of the RPL application is not more rigorous than the usual assessment of the study process.

Another type of RPL assessment, which is based on self-analysis, makes it possible to combine learning from different contexts into one application. In this case, the learner describes as substantively as possible the competencies they acquired in different contexts, based on the learning outcomes of

the module for which credit is being sought. This description must provide evidence of not only the existence of the competencies acquired, but also their substantive quality. This description comes in the form of substantive self-analysis, giving its name to the second type of RPL assessment.

In addition to self-assessment, the RPL application is founded on evidence – be it work experience or other types of learning. Broadly, a distinction can be made between direct evidence (samples of work, videos of performance, etc.) and indirect evidence (someone's assessments of work done, in-service training certificates, work certificates, etc.). However, the evidence is relevant in the combined application only in conjunction with the self-analysis. In certain cases, where it is difficult to prove what has been learned, the use of some assessment methods is also justified. The best known of these is the interview, but a demonstration of practical skills or something else that seems purposeful from the standpoint of the module whose recognition is sought.

The principles of RPL assessment are as follows:

- The assessment is evidence-based. Therefore, evidence, assessment methods and self-analysis are used in the assessment, but their triangulation – their joint use – is the strongest.
- Value is placed on learning from experience, not experience itself. The experience can be previous formal or non-formal learning experience, work experience or something else.
- The most important thing in the assessment is that the content of the prior learning and learning that took place elsewhere must be compatible with the module in question. If a significant part has not been acquired, credit is not given. If evidence is lacking regarding acquisition of some part, additional evidence can be requested.
- For the most part, the assessment is undifferentiated, except in the case of prior formal learning, if differentiated assessment was used. In the latter case, the assessment system must also be comparable.
- Assessment is based on the holistic principle. This means that the learning can originate from different contexts, but the final result must add up to the whole module.
- RPL applicants are not assessed more rigorously than conventional students.

Usually, assessment alone is not enough; learners also need advisers who are familiar with the organisation of studies and the principles of RPL. The advisers, too, should be familiar with the logic of how RPL assessment works.

In military education, RPL is used to recognise prior formal learning as well as recognition of prior work experience, which is one of the options for self-analysis.

In case of the second option, the applicant must prove how their previous work experience has enabled them to achieve the learning outcomes required by the curriculum and explain, in the self-analysis, the content of the acquired learning outcomes. The Estonian Military Academy makes significant use of recognition of work experience, most often in the field of language and medicine. Tests, interviews and practical performance are used in the assessment. At the same time, the school's resources must also be taken into account, because, for example, the assessment of tactical knowledge in the field in the context of RPL is not a purposeful approach from the school's point of view. The Estonian Military Academy allows students to apply year-round for recognition of prior learning or work experience.

RPL does not have to be applied everywhere, but if it seems that competencies have been acquired, it is still good form to do so regardless. Here, too, assessment is a key activity for ensuring quality.

CHAPTER 2. ASSESSMENT METHODS

As explained in the previous section, an assessment method is the format through which learners can present the learning outcomes they have acquired. The closer this format is to real-life activities in the work environment, the better. The more learning outcomes can be assessed with one assessment method, the more integral. The relationship between learning outcome verbs and assessment methods is shown in Table 1.

Like anything, the names of assessment methods, change over time and depending on context. The following is a list of both classical assessment methods and ones that are primarily used in the military field. However, people from other fields may also discover upon closer examination that they contain something familiar and useful.

In the following, we will look at assessment methods one by one, although several of them can be combined. For example, self-analysis is suitable as one part of a learning portfolio, a literature review may be followed by a presentation, a project is usually accompanied by a report, etc. Of course, there are more assessment methods than the ones we describe. Only the main ones we use in military education are mentioned here.

In preparing this guide, we also conducted a survey in the form of a questionnaire on the applicability of the assessment methods covered below. The survey revealed which assessment methods are used in schools that provide military education in general and by the respondents (N=20) in particular. In our sample, we had PME institutions from Poland, Czech Republic, Hungary, Romania, Croatia, Norway, Lithuania, Portugal and Estonia. In addition to frequency of use, we asked respondents to rank the five most commonly used assessment methods. The ones most commonly mentioned were the case study, exercise/simulation, research paper, practical training, oral examination and analysis. Although the sample was small, we used this as the basis for grouping the methods in this guide. We also received interesting problem statements from the questionnaires for the described assessment methods, which we will present below.

In dealing with the assessment methods, we devote attention to their possibilities and limitations. Not all methods are suitable for assessing all learning outcomes. In some cases, the problem is that it is time-consuming

or incompatible with a particular form of study. Therefore, several methods also include recommendations for how they should be used. For many assessment methods, we have also provided recommendations for formulating assessment criteria based on the format and setting out assessment tasks. And of course, the following is only a starting point for further thinking – the most important thing is that the assessment used in the academic process be clearly expressed and substantively appropriate for assessing learning outcomes.

2.1 Analyses

Besides looking at knowledge more widely, analysis presupposes an understanding and provision of a balanced assessment of the question at hand. It can be used for the assessment of both theoretical and practical learning outcomes. An analysis can be composed of a comparison of several phenomena or aspects, an evaluation of strengths and weaknesses, description of changes with justifications, etc. One can analyse a situation or a task (task analysis). Analysis can also be self-analysis.

Analysis is suitable for a question on an oral examination (for example, students are encouraged to analyse the theoretical concepts taught during the lectures and apply these theoretical concepts to a particular situation). An analysis component is also contained in a report, especially if it is the first or last phase of a project. It is definitely worth using self-analysis in a learning diary and portfolio.

In addition to classical analysis, special forms of analysis are used in military education – policy paper, staff paper and point paper. These will be discussed below.

TABLE 2. Possibilities and limitations of analysis.

<i>Possibilities</i>	<i>Limitations</i>
Allows assessment of higher cognitive skills such as synthesis and analysis	The method requires prior knowledge on the basis of which to perform the analysis
Encourages the learner to integrate a variety of fields, theory and practice	Learners run the risk of writing a description instead of an analysis
Develops logical thinking and the ability to see from multiple perspectives	Learners are also at risk of producing an analysis that is not based on facts or descriptions, but is purely emotional
Self-analysis is a central part of many complex assessment methods and a much-needed skill in lifelong learning	Danger of remaining at a level that merely describes events or experiences, without delving into the assumptions and attitudes that guide one's actions

Recommendations for using the assessment method

- If necessary, provide questions for analysis.
- It is worthwhile to include in the assessment criteria the connection between the description and/or argument with the conclusions.
- Analysis can be practised in smaller units within other assessment methods or as an activity during the learning process.

A few possible assessment tasks

- Analyse a case scenario to identify means to control, manage or engage pertinent project management factors such as scope, quality, risk, cost and stakeholders.
- Research and present a case of military innovation and analyse an application of that innovation's path to other areas.
- Go through scenarios or real-life situations and analyse the content they covered.
- Apply one short test to verify the knowledge and to use it in a practical or real situation. Usually, all tasks are related to the final examination or thesis.
- As a leader, analyse yourself from the perspective of statements about the topic/issue and their justification in the beginning and at the end of the course, and their comparison with discussion/conclusions about one's own values, principles or motives behind the justification before and after, the change, the rationale behind it etc.
- Analyse the situation and select the most effective solution.

Possible wordings of the formal assessment criteria for the case study

- The analysis was prepared on the basis of the description.
- All analysis questions have been answered.
- The conclusions of the analysis are well supported.

Substantive assessment criteria must definitely be added to formal assessment criteria.

In the following, we briefly describe three relatively similar, report-type forms of analysis used in military education. In addition to these, briefing notes, background papers and position papers are used as similar assessment methods.

Policy papers

A policy paper (policy brief, policy memo) is a short report on a problem or a decision for policymakers. The typical structure is as follows: (1) issue (title), (2) executive summary, (3) background information, (4) discussion of policy options, (5) actionable recommendation.

Staff papers

A staff paper is a short and focused paper often produced in military organisations and following a predefined structure. It has two main purposes: to impart information or to obtain direction. To achieve this purpose, a staff paper must present facts and be unambiguous, concise and direct in its style so that the reader can understand them easily.

Point papers

A point paper is a written product which conveys information by listing facts, assessments and recommendations.

What all three of these forms have in common is that recommendations for the best choice and/or behaviour are given at the end of them, after the data are presented.

A few possible assessment tasks

- Frame the problem, and give a solution to the commander.
- Give a recommendation of course of action.
- Analyse a particular situation which is a concern for the region or forces.
- Provide a summary of the text (3–4 paragraphs) and your opinion about the author's arguments (1–2 paragraphs). Make a recommendation for decision making.

- Turn a short piece of writing into a staff paper to concisely convey the information in the writing to the commander.

2.2 Case studies

Usually, this assessment method entails the presentation of a problem, event, situation or phenomenon; the analysis of its premises, and the provision of a solution. In this sense, case analysis is inherently similar to analysis as an assessment method, which in many cases also relies on real-life cases. The case study is also similar in nature to problem-solving. In addition to finding a solution, analysing the problem or case and, if necessary, looking for additional material plays an important role in both.

This method can be used for both individual and group assessments.

TABLE 3. Possibilities and limitations of case studies.

<i>Possibilities</i>	<i>Limitations</i>
Both subject knowledge/skills and analytical thinking skills can be assessed	The learner can solve a problem without delving into the theory or meticulously analysing the real causes
It often imitates real life, i.e., it is an authentic method	It is difficult to find or compile meaningful cases or problems of sufficient complexity
When used in a group, it provides an opportunity to provide feedback on cooperation, argumentation and persuasion skills	When used as a group method, it is difficult to assess the individual contribution of group members
Enables multidisciplinary and integrated tasks	

Recommendations for using the assessment method

- Learners can also be asked to describe and construct complex cases.
- Test problems with colleagues. Discuss whether they allow the acquisition of learning outcomes to be assessed.
- Case studies are particularly well suited to e-learning, where learners can solve a case together. In this way, the written discussion and solution, together with the teacher's comments, become new teaching material for others.
- Finding and/or solving a problem is also well suited as an RPL assessment method. As people begin to see and analyse situations more deeply in the course of professional development, case studies easily reveal the

depth of actual preparation. In conjunction with self-analysis, problems can also effectively be described retrospectively.

- To assess group performance, see the recommendations in section 1.3.5 of this guide.
- Use of a non-differentiated approach is recommended when assessing problem solving.

Some possible assessment tasks

- In the energy security NATO course, participants examine the case of the energy network in the Baltic states to conduct Red Teaming of threats to the network, Blue Teaming a response to those threats, and factor the results of both to make recommendations to improve energy efficiency of military organisations.
- One student group is to research and prepare a case study from a historical case or design one that is authentic but not factual. They will run the case as umpires against another group of students. The latter group is required to make multiple decisions at numerous decision-making points.
- Learners can apply their new skills or develop their values and attitude with respect to a real life topic or simulated scenarios. Thus, the method can be used in combination with a recommendation paper.
- Using an open source with a specific database from the sociological survey, the students are asked to develop their own analysis related to one topic of interest.

Example of a case study

Topic: related to Leading Change in organisations.

Situation. After receiving detailed information from Joint Headquarters (JHQ) about the upcoming transformation of Division Headquarters (DIV HQ), Division Commander (DIV COM) briefly introduced to his Chief of Staff and head of G5 section a plan to transform existing national DIV HQ to Multinational DIV HQ. He also mentioned to them that DIV HQ will have to be split into two parts that will be stationed both in the current location in their home country X and in foreign country Y. DIV COM did not spend time and effort on clearly explaining the upcoming transformation-related challenges. Moreover, he did not elaborate more about the attractive career possibilities the DIV personnel would have when the new HQ is transformed and functional. DIV COM tasked chief G5 to develop a DIV HQ plan for transformation.

As the plan was being drafted, rumours about the upcoming transformation of DIV HQ were spreading. As a result, the most experienced DIV HQ staff officers lost their motivation to serve in DIV HQ, and searched for possibilities to change posting in other units, retire from the armed forces or even end their military career. Skilled DIV HQ personnel wanted comfort in serving in the home country X. The transformation-related challenges promised to be huge, while their career opportunities serving in the transformed DIV HQ remained unclear to them. As a result, the most experienced DIV HQ personnel were not compelling and dedicated to supporting the transformation process and left the DIV HQ even before the transformation was implemented. The majority of the remaining DIV HQ personnel were hostile towards the DIV transformation and even hampered DIV HQ transformation efforts. DIV COM tasked the head of G5 to lead the transformation process. If required and asked by G5, the other DIV HQ sections (G1-G9) had to assist the G5 in the development of the transformation plan and during the implementation of the transformation. However, the other DIV HQ sections, seeing the change as a threat and not being directly involved in it, were reluctant to actively contribute to the change process driven by G5.

DIV G5 section found itself isolated and working alone on the daunting task of transforming a DIV HQ. They produced a detailed plan on how to implement the change, but everyone in other HQ branches was still confused about the overall direction of the transformation.

Even though the G5 presented the status of the DIV HQ transformation process to DIV leadership and HQ personnel during the official Commander's update briefings, the information was "dry" and staff members still lacked an understanding of the overall direction of the DIV transformation.

Some of the heads of the DIV HQ G sections were so reluctant and against the change process the DIV HQ was undergoing that they even talked openly about the impossible task the DIV HQ was carrying and suggested the transformation would never happen.

The DIV HQ transformation process was a long one, requiring continuous dedication from DIV leadership, G5, and other HQ sections to be successful. The transformation was planned to take 3 years to the point where DIV HQ would reach its aim of Full Operational Capability (FOC). However, in the middle of the transformation, DIV HQ personnel saw no evidence of transformation being at least partially successful, which in turn further degraded their morale.

After two years from the beginning of the change process, the DIV HQ was finally deployed into two locations, and the first Command Post exercise resulted in certifying that the DIV had achieved the Initial Operational Capability (IOC). However, everyone in the HQ knew that this certification was more of a “politically correct” one, and DIV HQ still lacked experienced personnel, C2 systems, and other critical equipment that prevented the DIV HQ from actually reaching the IOC. Nevertheless, the DIV COM was quick to declare that the transformation of the DIV HQ was a success. This hasty declaration further hampered the DIV HQ transformation process, which was slow and chaotic ever since it was started.

And finally, right after the first Command Post-exercise, the head of the G5 has reached retirement age. As he was the one driving the transformation process in DIV HQ, the continuation of the transformation depended on his successor. However, his successor did not pay much attention to the very fragile DIV HQ transformation results. He did not realise that besides numerous problematic issues, there were at least some good transformation results already reached and that these had to be anchored in DIV HQ SOPs and regulations. The new G5 chief knew that the final DIV HQ certification exercise was planned by JHQ within one year, and the headquarters was far from reaching the FOC (lack of manpower, equipment, training, etc.). From the day he took over his duties as chief of G5 section and was appointed to lead of DIV final transformation, he neglected the few positive previous transformation results and hastily started to draw up a new plan for DIV HQ transformation to reach the FOC. The result of the DIV HQ demonstrated in the final Certification exercise a year later was far from “Combat ready.” DIV personnel who had to endure the whole DIV HQ change process were confused and angry. They associated the word “transformation” with something horrible and which conveyed sarcasm.

Questions:

Explain what errors DIV COM made that hampered the DIV HQ change efforts? What could he have done differently? Use J. Kotter’s article “Leading Change: Why Transformation Efforts Fail” and his “eight-stage change process” discussed in class to illustrate your answer.

Possible wordings of the formal assessment criteria for the case study

- The analysis highlights the possible causes of the situation/problem.
- The proposed solutions have been compared and support arguments made for why one is better than the other.
- The proposed solutions are realistically feasible.
- Solutions are based on analysis and solve the causes of the problems.

Substantive assessment criteria must definitely be added to formal assessment criteria.

2.3 Reports

Reports include written analytical overviews of completed tasks, projects, practical training and internships, or other learning experiences. These are essentially analytical summaries of what has been done, and submitted for presentation.

TABLE 4. Possibilities and limitations of reports.

<i>Possibilities</i>	<i>Limitations</i>
Allows analysis of experiences and accomplishments	When reporting on the same activities and/or projects, plagiarism can prove very easy
Reporting skills are needed in many jobs, which is why mastering this form is an important competence	Learners can complete the report "theoretically" without going through the underlying activities or experiences
A report can be used to assess specific and clear self-expression skills, and the distinction between significant and insignificant	In the case of a group report, it is difficult to assess the contribution of each individual participant
Learners can use and bring out their strengths	

Recommendations for using the assessment method

- Once the standard report format or key questions have been provided in advance, it is easier to complete.
- A report compiled based on a practical activity should provide an opportunity to link theory and practice and to analyse progress through one's activities.
- Writing reports can be practised in the learning process and given feedback before being used as a final assessment method.

- Large reports should not be used too often.
- When preparing a report in a group, everyone can first give their own summary of how they contributed and how their contribution led to progress on the report. Then they can analyse the activities of others and the group as a whole.
- The report is also well suited for RPL – to analyse what you have done and what you have learned.

Some possible assessment tasks

- After discussing a historical situation or a case study, students are asked to write an analytical overview/report of the situation/case.
- After a short practical training stage, the students present an assessment of their experience.

Possible wordings of the formal assessment criteria in the report

- Alongside the results, the operational process is described.
- The report provides an evaluation of the your own and the team's activities.
- The report highlights the five most important results.
- The results achieved are linked to the methods for attaining them.
- The report compares the results with the objectives set.

Substantive assessment criteria must definitely be added to formal assessment criteria.

2.4 Presentations

This method aims at assessing both knowledge of content and proficiency in public speaking. Actually, learners can present many things – project reports, special forms of analysis, dissertations, results of practical work, different types of creations or a portfolio that collects them, etc.

Exposition is close to presentation in its aims, although an oral component might not be included. Sometimes the written presentation is called a poster. Presentations are also frequently used as a teaching method, which is not always assessed. A presentation can be used as both an individual and a group assessment method.

TABLE 5. Possibilities and limitations of presentations.

<i>Possibilities</i>	<i>Limitations</i>
The presentation is suitable in combination with another assessment method in the course of which the material presented is prepared	Listening to presentations takes a relatively long time, especially in larger groups
The presentation can be used to assess students' skills in public speaking, highlighting and answering questions	In the case of a large number of presentations, the other students drift off, lose interest in listening to them
Listening to presentations means learning not only from teachers but also from fellow students	A superb public speaker's persuasive powers can divert attention from weak content
Presentation is an assessment method in which the acquired and developed skills are needed in most work situations	
Presentations allow other student groups to see how other teams tackled and solved the problem at hand, reinforcing learning objectives and showing that there is diversity in problem solving methods and solutions	

Recommendations for using the assessment method

- Be sure to set a time limit for the oral presentation and make sure it is adhered to. Time can also be tracked by one of the learners.
- Write at least some assessment criteria to evaluate the formal side of the presentation.
- Use students' peer review or encourage the asking of least one question per presentation.
- For a large number of presentations, use a poster presentation prepared in groups, where group members stand one by one at their presentation and answer questions, while others walk around at the same time, view the other presentations and ask them additional questions.
- To increase focus, participants may be asked to vote for the most substantive or best-designed poster and, after their choice, provide reasoning for their decision.
- Encourage presenters to use visual materials – slides, diagrams, drawing-writing, etc.

Some possible assessment tasks

- Present results of operational analysis during exercises. Do this in 5 minutes.
- Any task assigned to an individual or a group to either present the results of a task or, for example a group collects the information about the issue, processes it and presents to other learners in order to teach them (flipped classroom method included).
- Propose plans for social improvement and evaluate the plans of others.

Possible wordings of the formal assessment criteria in the report

- The introduction to the presentation states what will be discussed.
- The presentation clearly distinguishes the most important material to be presented.
- The presentation is of a predetermined length.
- The visual side of the presentation supports the message it presents.
- The presenter speaks audibly, maintains eye contact with the audience most of the time and answers questions understandably.
- The format of the poster presentation is legible, with a logical sequence and sufficient information.

Substantive assessment criteria must definitely be added to formal assessment criteria.

2.5 Tests

Structured written assignments are called “tests”. This method differs from an essay/paper or summary as it is much more structured and usually needs to be completed in a short timeframe and in a controlled environment.

TABLE 6. Possibilities and limitations of tests

<i>Possibilities</i>	<i>Limitations</i>
Relatively easy to complete and quick to assess, automatic assessment is often possible in an electronic learning environment	Enables the assessment of mainly lower cognitive levels (recognises, knows, understands)
The method is good to use in large groups and electronic learning environments	Rarely allows authentic assessment
Different types of questions can be combined	If no new test questions are added, it will easily become copyable by other learners
Can be used for self-assessment, including without teachers in e-courses	The learner may accidentally get the right answers

Recommendations for using this assessment method

- The test should not be used as the main assessment method with a very high weight.
- The better-formulated the short-answer questions, the better comprehension can be assessed alongside the knowledge.
- Quantitatively, a 51% threshold should be avoided, as this is clearly too low a threshold. Structured work can include a combination of several types of questions.

Test assessment possibilities

- The test can be done in two parts – the first contains all the basic questions that need to be answered correctly, the second part distinguishes depth of knowledge.
- The use of a test for self-assessment is recommended.
- The recommended threshold is at least 70% correct answers.

It is also good to add substantive criteria to the formal assessment criteria, especially for short-answer questions.

The main types of test questions are

- (1) Multiple-choice
- (2) Matching questions
- (3) True-false
- (4) Essay or essay questions
- (5) Short answer
- (6) Completion (fill-in-the-blank)

Some suggestions for preparing test questions

- Ask one thing at a time.
- Be neutral and clear.
- Options could include typical “false answers”.
- Make it clear how many correct answers there may be.
- It must be clear whose opinion you are asking for, but it is better to ask for facts rather than assessments.
- If possible, arrange the answer options in a logical manner.
- There must be no logical pattern in the correct answers to the test (e.g., a pattern where the second answer is always correct).
- Avoid adverbs like “always”, “sometimes”, “never”.
- Avoid negative wording.

Some possible assessment tasks

- What is negativity bias? Pick one of the options given.
 - a) ... is a social norm whereby members of certain groups are not given the same opportunities as others.
 - b) ... is a psychological phenomenon by which humans have a greater recall of negative memories compared to positive memories.
 - c) ... is a cultural norm that discourages delinquent behaviour.
 - d) ... is a psychological phenomenon due to which humans have a greater recall of positive incidents compared to negative incidents.

- The combat functions are tool for and that provides a complete description of all the functions that military organisations do in, and operations.
- Name at least 9 out of 11 tactical tasks of the Special Capabilities Forces.
- Please explain concisely (maximum 300 words) the three principal Allied SOF tasks.
- Describe and define Operational Art and a commander's role in implementing Operational Art.
- Recite a policy.
- List safety rules.

2.6 Written assignments

Although a major part of assessment takes place in written form, one set of assessment methods can be grouped under the keyword “written assignments”. These are more substantive and longer than tests, but they may not be as analytical as case studies and analysis, and they are certainly shorter than a research paper. The list of these types of written assignments is not exhaustive, but below we focus on four special forms – written assignment with open materials, literature review, essay and problem solving.

TABLE 7. Possibilities and limitations of written assignments

<i>Possibilities</i>	<i>Limitations</i>
The clear and systematic written self-expression assessed by these forms is an important competence	Grading essays for a larger group is very time consuming
A literature review can be combined with a presentation and a subsequent discussion	Some learners may understand the substance, but get a worse result because of poor written self-expression
The literature review and work with open materials also enable the development and evaluation of skills in effectively using materials	When using materials, there is a risk that the text will be copied without the student really understanding its meaning
An essay can demonstrate creativity	The risk of plagiarism increases
Teaches the student to choose suitable sources	Danger of using unsuitable sources
Essay writing is good practice for writing research papers	A summary is not suitable for the assessment of the whole module, as it does not require students to engage in-depth with the field

Recommendations for using this assessment method

- In the case of a written assignment with open materials, limit the time available to ensure that students have familiarised themselves with the materials beforehand.
- In the case of a summary, it is good to assume that the learners add some kind of contribution, even if it is just an introduction and a summary, and that they provide support arguments for the choice of sources used.
- In the case of essays, the difference in requirements is relatively great (should it include a Works Used section or not; should it be discursive or descriptive, etc.). Therefore, it is good to formulate the assessment task in relatively fine detail.
- When assessing the work, give feedback not only on the content but also on the form of writing, especially in the case of an essay.
- A summary and written assignment with open materials can be used as part of larger assessment methods. For example, as part of a larger project (as an outline of existing information), a report on the student's reading for solving the problem on problem solving (overview of additional reading), or, in the case of a research paper, an overview of literature or the first draft of the theory chapter.
- As assessment of written assignments is time consuming, it is good to use peer assessment as well. In this case, it is usually a good idea to provide a feedback form in advance. In this way, learners can prepare for asking a

question, name a new thing they learned, or make some suggestions for improving the written assignment.

- Written assignments should be used especially in areas where students also have to express themselves in writing in working life.
- In the case of posing assessment tasks, make small changes, perhaps changing a few numbers, as this will significantly lower the risk of cribbing from previous assessments.
- Solving tasks is a good way to prepare for carrying out larger assessment methods. Tasks may also form part of the portfolio used for the final assessment.

Four main forms of written assignments

Written assignment with open materials

This method can be applied in class but is not limited to it. There is usually a set time limit for working with open materials in the classroom. This assessment method usually reduces stress and is therefore good to use for particularly complex and information-intensive topics. In addition, this less formalised form of assessment allows individuals to use references and other resources. At the same time, there is a risk that the materials will not be examined at all or that the student will not go in-depth in the task, but rather copy the materials by rote. A clearly formulated task will help forestall the latter risk.

Some possible assessment tasks

- Assessment of requirements related to use of military forces in crisis management scenarios.
- A task to decide on a usefulness/justification of a research method for a certain aim.

Literature review

This method usually does not involve the development or presentation of new positions on a subject but instead concentrates on using academic and professional literature to express oneself in an academic manner and style.

Some possible assessment tasks

- Summarise the principles of war.
- Describe the different theoretical approaches to civil-military relations.

Possible wordings of the formal assessment criteria for written assignments with open material and summaries

- The materials used come from scientific sources and are contemporary (clearly state what is meant by contemporary, for example, scientific literature from the last ten years, or, with a good reason, older ones as well).
- The main schools of thought are presented and the difference between them is analysed.
- The materials used are correctly cited.

Substantive assessment criteria must definitely be added to formal assessment criteria.

Essays

Essays are creative works of writing in which arguments are structured in a logical and academic manner. Essays include the author's personal assessment of the topic based on individual research. A theme can be provided or not. In this sense, essays are an experimental way of looking at a subject from different vantage points. They provide not only an opportunity to assess what has been learned but also to test whether a student is capable of the creative application of the subject. The four main types of essays are narrative, descriptive, argumentative and expository.

Some possible uses

- Long term implications of specific defence policy decisions, progress of implementation of specific policy with assessment of implications.
- In team and in class settings, learners write an argumentative essay.
- It is the main component of asynchronous distance learning.
- Sociology is an appropriate subject to use this method in: students can be asked to write a sociological essay on a specific theme, where they can use both their knowledge and their perspective (values).

Possible wordings of the formal assessment criteria in the essay

- The question posed in the introduction to the essay can be answered by the end of the text.
- The arguments are well-founded and support the main argument.
- The transitions are clear and the structure logical.
- The text is stylistically correct.

- The sources used are cited according to the style guide.
- Substantive assessment criteria must definitely be added to formal assessment criteria.

Exercises

- In the course of teaching, students can be instructed to solve different types of tasks. These may include calculation, writing copy, or some other task close to real life.
- For example, tasks could include.
- Calculate the sonar range.
- Construct a job interview guide.
- Formulate an Op Order.
- Break down a financial balance sheet.

2.7 Oral examinations

An oral examination can be used as an opportunity to have a conversation on relevant or predetermined academic topics. In the course of the examination, the teacher can ask additional questions and find out the actual competence of the learner more clearly than in the case of any other assessment methods. Sometimes the method is also called an academic interview.

TABLE 8. Possibilities and limitations of the oral examination.

<i>Possibilities</i>	<i>Limitations</i>
It is a flexible method, and allows questions to keep on being asked until certainty is attained regarding the learner's actual level of knowledge is assured	The learner may not have the same ability in all matters. Therefore, good luck and chance play a major role in getting the question right
In addition to knowledge about the content, the assessment can also measure ability to form associations, analysis, evaluation, problem solving and other skills assessed	It is very time consuming for the teacher
The authenticity of students' knowledge is effectively ensured	It is relatively subjective and, unless it is recorded, difficult to challenge
Provides a good opportunity for learners who are stronger orally than in writing	There is usually a very large amount of material that is in danger of being quickly forgotten

Recommendations for using the assessment method

- Giving students flashcards before the examination reduces anxiety and helps them to focus on the most important.
- Certain types of assistive resources may be permitted at the oral examination.
- The oral examination can be assessed quite well in a differentiated manner. The assessment criteria for the oral examination are usually substantive. If the examination assesses the substantive information for the whole module, learning outcomes can also be used as assessment criteria.
- Since good luck and chance play a role in getting the examination questions right, it is good to use other assessment methods within the module to ensure that all the main learning outcomes are achieved.
- An oral examination can also be used in e-learning.
- In order to use time more rationally and to enhance learning from each other, the oral examination can be taken in the form of a so-called focus group – first each group member answers their own questions and then others can comment on them. This continues until everyone has been able to respond and comment.

Some suggestions for oral examination questions

- Recite a policy.
- Summarise the principles of war.
- Explain the debugging of a computer system.
- Explain the four constructs of Transformational Leadership. Give examples of how, as a style of leadership, you have seen or not seen their impact on members of your organisation. Why, in your opinion, are transformational leadership skills especially important in military organisations?

2.8 Research papers and theses

A research paper or thesis presents the results of theoretical or empirical research and has a set structure and guidelines. This method is used to assess independent research skills. In addition, this method is helpful in assessing learning outcomes, such as “problem solving,” “creative capacity,” and the ability to “present new solutions.” By its nature, research papers usually take the form of a argumentative essay.

A research paper is often used as the format for the final thesis summarising the entire curriculum. As this is a large-scale work of research and the student's independent responsibility, this assessment method can also be used to gauge students' readiness and professionalism for succeeding in independent working life where a great deal of responsibility is required. A thesis is usually used in conjunction with a presentation, followed by the defence of the thesis in the form of answering questions.

TABLE 9. Possibilities and limitations of the research paper.

<i>Possibilities</i>	<i>Limitations</i>
The fact that the learner is using creative synthesis enables assessment of large blocks of content together and in an integrated way	It is a extreme sizeable independent effort for the learner, requiring successful time management skills
Allows the learner to choose a topic of interest (in the field of the curriculum) and to delve into it thoroughly	It requires quite a lot of supervision and thus the substantive individual contribution of teachers
The assistance of a supervisor who supports the student can be used	Without supervision and substantive protection, there is a risk of plagiarism; therefore, instruction on how to prevent plagiarism is required
It is an authentic method of assessment, because research needs to be carried out from time to time in working life	

Recommendations for using the assessment method

- Throughout the curriculum, provide opportunities to learn the skills needed for research. Among other things, pay attention to academic writing style, citation, finding and synthesising suitable sources, constructing an argument, and research methods.
- Lay out clear assessment criteria, which, in the case of a differentiated grade, also make evident the basis on which the grades are differentiated
- In the process of supervising the student, also teach time management skills. Set interim deadlines for learners so they can keep track of time.
- Offer students the opportunity to participate in other students' defences. If necessary, arrange a pre-defence.
- Give an opportunity to evaluate the work of other students through peer review. Make sure that the assessment is based on assessment criteria. In this way, students also learn to critically assess their work.

- As the thesis is usually a large-scale and weighty endeavour, it is a good idea to use several people to assess the work, perhaps even an assessment committee.
- For the sake of clarity, it is good for the sake of clarity to establish assessment criteria separately for the written thesis and the oral defence.

Example of a description of the assessment of a bachelor's thesis (9 ECTS)

Assessment method – written thesis

Assessment criteria

- The title of the work is reflected in the chapters and purpose of the thesis and has been carried out within the subject of the curriculum.
- The introduction is logical and describes the problem justifying the work, the aim of the work and the research question, the main terminology, the main sources used and the structure of the work.
- The choice of research topic is justified and salient.
- The theoretical part is based on the main sources of the chosen research topic.
- The sources used are justified in terms of the chosen research topic, not just cited.
- The sources used are correctly cited.
- The empirical part of the work is supported by the relevant theory.
- The research methodology fits the research question and allows the aim of the work to be achieved.
- Empirical research has been conducted and documented in accordance with good research practice; the principles of selection of research means, sample preparation, data collection and processing have been described.
- The research results are presented systematically and clearly and illustrated.
- The thesis includes a discussion that interlinks the theoretical and research part and provides an answer to the research question.
- The summary of the work recapitulates the most important theoretical part and research results and clearly presents the main results of the work and the conclusions drawn from them.
- The work is formatted correctly, a consistent style is used throughout.
- The list of works used includes at least 15 sources, of which at least one-third are in languages other than Estonian and at least half are scientific sources.

- The work is 12,000 words long, plus or minus 10%, the bibliography and appendices to the work can further expand this volume.

Thesis defence assessment criteria

- A summary of the work or project is provided, up to 10 minutes long, setting out the problem justifying the research or project and its purpose.
- In the case of research, the method, main sources, results and conclusions are described.
- Where possible, the results of the research are illustrated with visual examples.
- In the defence, the project will be introduced in full, in justified cases only partially.
- The prospective graduate answers the questions exhaustively, if necessary providing support arguments for the work done or describing the ways of obtaining the results.

Some possible assessment tasks or research topics

- Evaluate historical trends in military development and job opportunities or assessment of historical trends related to a military force development and employment.
- Is the development of new military technology an opportunity or a threat to the security of the Baltic region?
- The influence of energy security on the diplomatic, military and economic instruments of national power.

2.9 Projects

The project is a composite assessment method used for preparing and assessing more extensive student work. Due to its large scale, the project is often done in a group. A project can be a very authentic assessment method that can meet a real need or demand. Depending on the field, the project can also be submitted together with an application for funding or to satisfy another application.

There are usually three major parts to a project – planning, execution and evaluation.

When planning, an analysis may be prepared and presented or submitted for funding. While the project is being carried out, practical exercises important from the point of view of the curriculum may be presented.

When providing an assessment, a report can be prepared and presented if desired. It is recommended to include a self-analysis section in the report.

TABLE 10. Possibilities and limitations of projects.

<i>Possibilities</i>	<i>Limitations</i>
It is especially suitable in those areas where projects are otherwise carried out and project-based thinking is used	It is a large-scale assessment method that requires thorough planning and a clear problem statement
A variety of general competences can be assessed, including time management and teamwork	When working with a group, the project workload may be unevenly distributed among the members
The project can be linked to a presentation in which the project is defended. At the same time, learners develop presentation and argumentation skills; listening to other projects on the other hand develops assessment skills	Requires consistent and effective supervision, especially if projects have not been completed before
Analysis and, at the conclusion of the project, self-analysis can be used to provide support arguments for the project	

Recommendations for using the assessment method

- The topics of the projects could be as close to real life as possible, i.e., ones that learners will come into contact with in the work environment. It is even better if they are indeed carrying out a real-life project.
- In the case of major deadlines, provide interim deadlines and give feedback during the process. The parts of the project can also be given a summative assessment separately.
- If possible, involve employers in the assessment.
- Also set forth in the assessment criteria the components that assess the process (teamwork, time and activity planning, communication skills, etc.).
- Suitable for use in modules such as Project Management, Defence Planning, Defence Policy.

Some possible assessment tasks

- Compile a 10-year procurement plan.
- Compile a small exercise plan.

Possible wordings of the project's formal assessment criteria

- The project outline has a strong rationale and the purpose of the activities is clearly formulated.
- A project carried out as teamwork describes aspects of cooperation and division of tasks.
- The self-analysis provides an assessment of one's own activities in terms of time management and cooperation skills.
- The project's report section specifies the fulfilment of the goal, the learning experiences gained in the project and, if something went differently, the reasons why it did.

Substantive assessment criteria must definitely be added to formal assessment criteria.

Example: Final thesis project with written support arguments (9 ECTS)

Criteria for reasoning behind project

- The introduction is logical and describes the reason the project was undertaken, and the purpose and structure.
- Reasoning is provided for why the project is needed.
- The project is related to the chosen curriculum and, if possible, also to the chosen field of specialisation.
- The text reflects the main sources underlying the project and their relationship to the project.
- Written support arguments are provided for the structure of the project and its methodology.
- The sources used are related to the project and presented in synthesised form.
- In summary, the achievements or intended aims of the project are described.
- The sources used are correctly cited.
- The written part is 6,000 words, plus or minus 10%, a list of references may further expand this volume.
- The work is formatted correctly, a consistent style is used throughout.
- The list of works used includes at least 15 sources, of which at least one-third are in languages other than Estonian and at least half are scientific sources.

The project's own criteria

- The title of the work reflects the content of the project.
- The project has been carried out correctly.
- The project has been submitted or is available for the duration of the defence.

2.10 Exercises, simulations and practical training/internships

Depending on the field, a practical exercise can take very different forms as an assessment method. This method aims at assessing psychomotor skills in a safe and secure environment. The practical exercise can be performed either in a simulated environment or in a real-life work context. The second is, of course, better, but not always possible or sensible.

As an assessment method, a practical exercise is an authentic process method in which the activities in the assessment methods and not the outcome are described. An assessment method that is similar to a practical exercise is practical work, where attention can be paid to both the activity and the result. Ultimately, the focus of the assessment method is determined by the assessment task set out specifically in the learning context.

TABLE 11. Possibilities and limitations of exercises

<i>Possibilities</i>	<i>Limitations</i>
As practical skills are considered an important competence in the curriculum, this method can be used to assess an important part of the curriculum	A person can acquire practical techniques without knowing why they are doing something. This method does not assess comprehension
It allows to demonstrate what has been learned theoretically and practically as it is actually used, i.e., it is very authentic	Procuring simulation tools can be costly
A simulation environment provides the learner with greater privacy and security than a work environment and supports the development of the confidence necessary to perform practical skills	For large groups, it is resource and time consuming
Simulations can also be used in a virtual environment	
In the case of practical training, the general competences of the learner can be assessed	

Recommendations for using the assessment method

- The assessment criteria for the practical exercise should include the components of all relevant skills in a logical sequence.
- The assessment criteria should highlight the threshold below which performance is no longer considered acceptable.
- It is good if learners already know the assessment criteria that their performance must meet while they are practising practical skills.
- The learner benefits more from individual feedback on their performance than from general feedback given to everyone at once.
- If necessary and possible, it is good to record performance – so it can be analysed both by the learner and the teacher.
- When describing the assessment criteria, it is good to formulate them as descriptions of activities, one activity at a time, and so that it also answers the question “how”.
- For practical tasks, fellow learners can also participate in assessment – people usually see the mistakes of others before their own.
- During the course, students are assessed by Syndicate Guiding Officers on their academic/professional performance in a format called Student Performance review. This kind of assessment could be related to Practical Training.
- The assessment criteria for assessing the general competences of an intern may be, for example:
 - Informs management on matters that they feel strongly about.
 - Recognises the need for balance between freedom and responsible behaviour.
 - Cooperates in group activities (displays teamwork).
 - Displays a professional commitment to ethical practice on a daily basis.

Some possible assessment tasks

- Use airpower in crisis response operations.
- Troubleshoot a piece of equipment.
- Staff exercise.

2.11 Learning diary and learning portfolio

The common feature of the last two assessment methods discussed in this chapter is that they fuse the learner's longer period of learning, either as a reflection (learning diary) or as a combination of sample work and reflection.

Learning diaries

A reflective learning diary is used here to signify assessment methods where students describe and analyse their learning process. It can be a lecture diary, practical training diary, reading diary, etc.

Portfolios

Learning portfolios can be different, depending on the purpose for which they were compiled.

A work portfolio consists of all the material that has been accumulated during the study period. It can contain everything starting from the draft idea for a project to self-assessment for task completion on an exercise.

A portfolio of exemplar work consists of the best performances of a student.

A student's personal development portfolio is compiled over a longer period of time and consists of works that best show that student's development.

Thematic portfolios consist of materials pertaining to one particular topic.

TABLE 12. Possibilities and limitations of the learning diary and learning portfolio

<i>Possibilities</i>	<i>Limitations</i>
The learning portfolio and the learning diary make it possible to monitor the student's professional development over a longer period of time, which is why it describes not only the student's ability, but also the development of that ability	The learner usually has a great deal of freedom in compiling the learning portfolio, so the quality of these may vary significantly be different
The learning portfolio allows the assessment of both the result and the process	Discussing learning diaries might be difficult if there are too many learners in a group

<i>Possibilities</i>	<i>Limitations</i>
In both assessment methods, the learner can highlight their strengths, development and success. At the same time, they also learn to analyse themselves better	If the learning diary and/or learning portfolio must be compiled in a virtual environment, the performance may be limited by the learner's computer skills
Ideally, these assessment methods allow for a strong emphasis to be laid on the learner's individuality	Both assessment methods are quite labour intensive for both the person compiling them and the one assessing them

Recommendations for using the learning diary and learning portfolio

- Do not use these voluminous assessment methods very often or in several modules at once.
- Write down the parts of the portfolio of different types in the assessment task, ideally together with the assessment criteria.
- The portfolio can be used, for example, to prepare for teaching.
- When assessing leadership competences, for example, a learning diary can be used to assess oneself at the beginning of a module, then formulate what competences a learner wants to develop, gather information and feedback on those competences, and finally analyse the change that has taken place.
- In both forms, there should be a self-assessment of the progress made during the period under observation. The learner should also add some kind of comment or mini-analysis to each part of the learning portfolio.
- The learning diary is also suitable for analysing a longer internship period, thus taking the form of an internship diary. Such an internship diary, together with the defence, can be used for a summative assessment of the internship or a more compact internship report can be prepared on the basis of the diary.

The first chapter concentrated on the conceptual key points that are important to bear in mind when designing assessment into the learning process and in the second chapter, we discussed some of the more widely used assessment methods. In the following chapter we present four assessment examples from the Baltic Defence College.

CHAPTER 3. SELECTED EXAMPLES FROM THE BALTIC DEFENCE COLLEGE³

It should be remembered that the examples are dynamic and continue to develop after they have been published here. Nor is any of the examples worth copying automatically. They are intended to serve as mirrors to compare the descriptions of your own models to, and then decide where to do something similar and where to diverge from the example.

Furthermore, the examples are not given in a standardised form. They just provide a general sense of how the learning process – in particular, the assessment – might be described to the students in a comprehensible manner.

3.1 Operational Law

The module is delivered to the Baltic Defence College's Joint Command and General Staff Course (JCGSC) and Civil Servants Course (CSC).

Time Distribution

- Total hours 70 h (the sum of CH and IPT)
- Contact Hours (CH), including lectures and syndicate activities: 49 h
- Individual Preparation Time (IPT): 21 h
- 3 ECTS Credits (1 ECTS = 26 hours of student work)

The aim of the module

The aim of the module is to examine legal frameworks relevant for planning and conducting military operations. As a whole, it constitutes a package of legal knowledge that an operational staff officer or a civil servant contributing to military operations is expected to understand and apply in his/her everyday work.

³ We would like to thank Mr. Olavi Jänes, William Combes CAPT N (Ret) and Lukáš Dyčka, PhD, of the Baltic Defence College for their help in compiling the examples.

Learning Outcomes

At the end of this module, students should be able to:

- Explain the rules of international law related to the use of armed force.
- Explain the concept of command responsibility, and enforcement of international criminal law.
- Analyse the application of principles of the law of armed conflict and human rights law in a joint operational environment.
- Identify and employ rules of engagement for a joint military operation.

Key themes

- Legal Framework of Use of Force
- Law Applicable in Armed Conflict
- Direct Participation in Hostilities
- Prohibited and Restricted Use of Weapons and Methods of Warfare
- Legal Framework of Naval and Air Operations
- Enforcement of International Criminal Law
- Development and Application of Rules of Engagement

Study Process

The module will include a mixture of individual preparatory work, lectures, discussions and syndicate activities. These activities are designed to enable the students to discuss and debate the legal issues related to the planning and conduct of military operations.

The study process is in the following sequence:

Contact learning

- The students individually do their mandatory preparatory readings that support the delivery of lectures on the next day. In addition to preparatory readings, the students are also provided with a list of voluntary supplementary readings that can be used by those who seek more (detailed) information on the topic.
- The lectures address key topics at the necessary level of detail and trigger discussions. Normally 1/5 of the lecture time is an actual discussion.
- The lecturing on a topic or group of topics is followed by a syndicate-based activity that requires application of acquired knowledge through analysis of certain situations. These are normally based on scenarios that come with supporting documents. Often real-life documents are used. The lecturer visits syndicates during their discussions and offers necessary support to keep the discussion on track.

- After the syndicate discussions, a plenary session is conducted where the selected syndicates are asked to present their findings, and the lecturer(s) provide immediate comments/feedback.

Distance learning

- Like in contact learning, the students individually do their preparatory and supplementary readings in support of the next day's activities. However, these are not meant to support the lectures, but the discussions next day. The focus of preparatory readings is shifted from journal articles and book chapters to lecture slides (e.g., in PowerPoint) and respective audio files prepared in support to the slides by the lecturer.
- The day when the respective topic(s) is covered starts with an online plenary discussion in Microsoft Teams or another designated environment. The lecturer will ask randomly chosen students to explain certain issues, helps to explain these issues, and takes questions from the audience. Everyone needs to be well prepared as anyone may be requested to answer a question, and the answer is expected to make sense and demonstrate a good level of preparation.
- As in the case of contact learning, a syndicate activity will follow a discussed topic or group of topics. To ensure active participation of every student in the distance mode, the syndicate activity is divided into three phases: individual preparation, online group discussion, and online plenary discussion (including syndicate presentation(s)). At the end of students' individual preparation phase, everyone will upload their individual findings in written format (as much as they could find answers to the tasks by that time) to a designated folder in MS Teams. This phase ensures individual contribution to/preparation for the subsequent relatively short and focused online syndicate discussion during which syndicate members agree on a syndicate's position to be presented in the plenary. It also allows the lecturer to see students' individual efforts and potential problems with the topic(s) when checking these products on a random basis and explain certain topics later to all students as an extra effort to ensure students' understanding of the topic(s). During the online syndicate discussion phase, a syndicate meets online. The lecturer will have access to the syndicate's discussions, too. As the syndicate members are better and more equally prepared for the discussion than in case of contact learning, then the discussion is mostly focused on agreeing on answers to the syndicate tasks. The online plenary discussion phase

includes syndicate(s) presentation(s) and the lecturer's comments/feedback.

Assessment

Assessment is non-differentiated (Pass-Fail), for CSC students there is also "Pass with Distinction".

<i>Assessment method and assignment description</i>	<i>Assessment criteria</i>
Written exam During the open-book exam, the students will be required to analyse a complex scenario from a legal point of view. The scenario is supported by respective questions	The students will identify problems, analyse them in the light of previous teachings and preparatory reading materials and by doing that provide answers to the questions. The assessment is supported by an Assessment Matrix (look below)

Assessment matrix

<i>Fail</i>	<i>Pass</i>	<i>Pass for JCGSC</i>
		<i>Pass with Distinction for CSC</i>
no understanding and proper use of background information	use of background information with occasional flaws that affect the sophistication and/or correctness of the answer	full use of the background information
no meaningful identification of the problems	identification of at least the core problems	identification of all problems
irrational approach to the answer	addressing problems in a generally logical order	addressing the problems in a highly logical order
the answer is irrelevant in response to the question, i.e. does not capture the essence of the question and demonstrates no grasp of the subject matter	the answer is mostly relevant in response to the question, i.e. captures the essence of the question with some flaws and demonstrates a grasp of at least some elements of the subject matter	the answer is highly relevant in response to the question, i.e. captures the essence of the question precisely and demonstrates excellent grasp of the subject matter
solution is not supported with argumentation or is not understandable, no understanding about applicable legal frameworks, norms or principles	limited use of evidence in argumentation, demonstrated by limited relevant references to the applicable legal frameworks, norms or principles	outstanding use of evidence in argumentation, demonstrated by correct references to the applicable legal frameworks, norms or principles

In case of doubt whether the exam paper deserves the respective grade, the assessor reserves the right to take additionally into consideration the student's performance during the module. In case of contact learning, the assessor can rely on the student's participation in the lectures and syndicate activities. In case of distance learning, in addition to participation in the plenary and syndicate discussions, the individual findings uploaded during the syndicate activities can be taken into consideration.

The option of considering participation serves two goals. First, it serves as a motivation tool for students' active participation in the Module. Second, it ensures an additional source, should the assessor be in doubt about the final grade.

The grading is expected to take approximately 2 weeks. The assessment sheets are filled in only in case of failed papers and they include specific comments on the mistakes. When the grades are released, a thorough collective feedback session will be conducted. It will address the typical mistakes and offer a discussion on the correct solutions. If there is a need for a more individualised feedback, then an individual feedback is available after that.

3.2 Project Management

The module is delivered to the Baltic Defence College's Joint Command and General Staff Course.

Delivery may be augmented by appropriate GL from BDC staff, military or industrial PM experts.

Time Distribution

- 3 ECTS Credits (1 ECTS = 26 hours of student work)
- Total hours 78 h
- Contact Hours (CH), including lectures, syndicate activities and Baltic Study Trip: 50 h
- Individual Preparation Time (IPT): 28 h

The aim of the module is to employ conceptual approaches in project management and use practical tools and processes to help manage critical success factors in each of the project management life-cycle phases by applying these tools in project planning. To develop knowledge and skills necessary for project work and management to solve problems.

Learning Outcomes

At the end of this module, students should be able to:

- Identify the fundamentals of Project Management.
- Estimate the key elements in successful project management to maintain the scope in line with objectives and goals.
- Translate the concept of project management across the breadth of military duties.
- Employ project management concepts to solve staff and organisational problems.

Assessment

Assessment is non-differentiated.

“Pass with distinction” will be considered for Syndicate sub-teams that deliver the best most thorough project proposal and presentation and/or employ innovative virtual teamwork.

The final result of the module is based on quality and content of team Project Proposal and Project Proposal Brief, Syndicate Seminars and Syndicate sub-team activities. All must be done on the level of learning outcomes.

<i>Assessment method</i>	<i>Assessment criteria</i>
Project Proposal and Project proposal brief. Syndicate work	<p>Content (project proposal):</p> <ul style="list-style-type: none"> • How well developed is the structure of the presentation? • Is the plan detailed, effective and feasible? • How clear are the explanations? • Are terminology and concepts used correctly? • How clear are the answers to the board's questions? <p>Delivery (project proposal brief):</p> <ul style="list-style-type: none"> • Was delivery effective in terms of confidence and credibility? • Are the slides clear and well organised? • Did the presentation meet the allotted time? <p>Engagement (quality and content of team):</p> <ul style="list-style-type: none"> • Each student represented himself as a good ambassador of his/her team. • It is expected that all members of syndicate demonstrate the best manner during the presentation and a professional demeanour when interacting with the assessment board.

<i>Assessment method</i>	<i>Assessment criteria</i>
Syndicate Seminars and Syndicate sub-team activities	Student individual and syndicate team engagement and participation in learning activities are assessed by the Module Coordinator and Syndicate Guiding Officers (no formal assessment criteria)

Study process

Learning methods are lectures (L), seminars (S) and syndicate activities (SA)

Key Themes/Topics:

Introduction to Module/Project Management (*Intro to the topics, Fundamentals and principles of PM*). – L

- Project Scoping (*Project Identification, Strategy/Logical Framework*). – L-S
- Project Design (*Work breakdown structure, Work packages, problem trees, objective trees*). – S
- Agile Project Management (*Main topics: Key concepts and definitions. Project cycles and management. Monitoring and evaluation requirements*). – L
- Managing Time (*Scheduling, critical path, PERT, Gantt*). – S
- Stakeholder Engagement (*Internal & external stakeholders. Prioritisation chart. Participation matrix. Stakeholder plan*). – S
- Risk and Scenario Analysis (*Risk analysis. Risk Response Strategies. Scenarios*). – S
- Project Monitoring, Evaluation & Reporting. (*Review the objectives, activities, and anticipated outcomes, role of project manager*). – L
- Project Communication (*Communication principles, milestones in project cycle. Stake holders. Media planning*). – S
- Controlling Costs (*Costs vs. activity, deliverables, cash flow, budget balance*). – S
- Complex Project (*Complex Project Management Frameworks. Complex vs. complicated projects*). – L
- Project Launching and Closing. (*Review the objectives, activities, and anticipated outcomes, role of project manager*). – L
- Practical PM Experience. – L
- Syndicate Activity (SA): Project Plan, Project Proposal Presentation.

3.3 Defence and Strategy Studies

The module is delivered to Baltic Defence College's Joint Command and General Staff Course (JCGSC).

Time Distribution

- Total hours 156 h
- Contact Hours (CH), including lectures, syndicate activities and Baltic Study Trip: 118 h
- Individual Preparation Time (IPT): 38 h
- 6 ECTS Credits (1 ECTS = 26 hours of student work)

The aim of the module

The aim of the module is to examine the dynamics and challenges in the contemporary security environment and their impact on the security and defence policies of Estonia, Latvia and Lithuania.

Learning Outcomes

At the end of this module, students should be able to:

- Demonstrate an understanding of how international, regional and domestic political developments affect national security and defence policies.
- Investigate threats and challenges to security and the strategic responses that states and international organisations implement to address them.
- Explain the process of strategy formulation and the relationship between ends, ways and means.
- Distinguish key concepts in international relations.
- Examine the coherence of the political ambitions, defence objectives and force posture of the Baltic states.
- Investigate the significance of allied cooperation and integration in the Baltic region.

Key themes

- Strategy formulation, concepts and theories of international relations.
- International organisation with focus on NATO and EU.
- Contemporary threats to Baltic and NATO countries.
- Approaches to domestic policy and civil-military relations.
- Security and defence.

Assessment

Assessment is summative and differentiated. The final result of the module is formed on the basis of four different assessment methods. All assessment methods need to be passed at least at least at 40% or bare pass level. All assessment methods are graded, each assignment is assessed individually using this grading system. Assignment grades will not be rounded up or down. The final grade is determined by the average of all four assignment grades. The result is rounded up or down to arrive at the final grade.

<i>Assessment method</i>	<i>Assessment criteria</i>
Knowledge test (10%)	At least 40% right answers 0–10, graded (look at Grading scale 1 below)
Policy paper (30%)	Depends on the topic <ul style="list-style-type: none"> • Standard criteria for the policy paper (look at below) • 0–10, graded (look at Grading scale 2 below)
BDST group presentation (20%)	Team grade will be the same to all team members <ul style="list-style-type: none"> • Standard criteria for the presentation (look below) • 0–10, graded (look at Grading scale 2 below)
Oral exam with case study scenario (40%)	Assessment council decides <ul style="list-style-type: none"> • 0–10, graded (look at Grading scale 2 below)

Grading scale 1 (0–10) for the knowledge test

	GRADE	% range
Distinction	10	95–100 %
	9	85–94 %
Merit	8	75–84 %
	7	65–74 %
Pass	6	55–64 %
	5	45–54 %
Bare Pass	4	40–44 %
Fail		1–39 %

Grading scale 2 (0–10) for the policy paper, BDST group presentation, and oral exam

Distinction 9–10	The student displays an outstanding grasp of the subject matter and very broad level of achievement of learning outcomes
Merit 7–8	The student has fully met the module aim by displaying a strong grasp of the subject matter and attainment of learning outcomes at a very high level
Pass 5–6	The student has met most of the module aim by displaying a satisfactory grasp of the subject matter and attainment of a learning outcomes at a satisfactory level
Bare Pass 4	The student has not quite met the module aim due to a deficient grasp of the subject matter and an attainment of learning outcomes at minimum level
Fail 0–3	The student has failed to meet the module's aim due to an inadequate grasp of the subject matter and acquired knowledge and skills are below the minimum level

Standard criteria for the policy paper

General overview

Is the research:

- Relevant to the topic?
- Sufficient in quality and quantity?
- Shows the overall effort put in?

Argumentation and evidence

Does the answer:

- Identify the problem and explain why it is an important one?
- Develop a clear thesis statement?
- Reveal sufficient grasp of relevant key concepts? Are the concepts used clearly defined?
- Remain relevant to the question?
- Does not rely on simple descriptions, but analyse the topic?
- Lead to a conclusion, which is more than just a summary, by suggesting wider implications and providing recommendations?
- Are recommendations actionable?

Does the work:

- Demonstrate an ability to analyse and synthesise the work of others?
- Provide sufficient evidence for the argued case?
- Relies on a variety of credible sources?
- Acknowledge the legitimacy of alternative points of view?

Structure and organisation

- Is the paper focused, the flow of argument is consistent and does not deviate from the topic at hand?
- Is the paper logically structured?
- Is the argument coherent and consistent?
- Does the paper do what it promises in the introduction?
- Are sections and paragraphs in the sections clearly structured?

Format and language

- Does the assignment stay within the prescribed word limit?
- Is referencing precise?
- Is the language and tone appropriate?
- Are tables and figures (if applicable) correctly formatted?
- Are the references and bibliography (if applicable) correctly formatted?
- Is the template for academic writing used?

Study Process

- Lectures and interviews (approx. 60 hours)
 - Theories and history
 - War studies
 - Domestic politics and threats
 - Baltic region
- Syndicate work (33 hrs) – led from the Department of Political studies (civilians)
- Baltic Defence Study Trip (BDST) – (24+ hours) is an integral part of Module 2. During the BDST students will gain knowledge on the national (Estonian, Latvian and Lithuanian) defence policies, decision-making principles and defence planning priorities. The BDST also contributes to familiarisation with international military structures, including NATO's presence in the region, as well as attainment of a better understanding of national military installations and facilities.

- Individual preparation time (38 hrs) should serve for preparation of individual tasks and those are: policy paper, oral exam and the knowledge test

3.4 Complex assessment of several modules together – Oral Exam

M1. Leadership and Command (whole module)

Credits: 6 ECTS Credits (1 ECTS = 26 hours of student work)

The aim of Module 1 is to analyse leadership theories and practices in order to contribute to the development of students as adaptive leaders capable of assuming positions of organisational level commanders and operational level staff officers

Learning outcomes

At the end of this module, students should be able to:

- Analyse the main elements and concepts of leadership to improve their leadership abilities.
- Examine and employ the characteristics of self-leadership to increase self-awareness and improve their ability to positively influence themselves and their subordinates/colleagues.
- Apply organisational leadership-related aspects to improve their performance in organisational command and operational staff positions.

M2. Defence and Strategy (part of the module)

Credits: 6 ECTS Credits (1 ECTS = 26 hours of student work)

Oral examination provides 40% of the final Module assessment.

The aim of the Module 2 is to examine the dynamics and challenges in the contemporary security environment and their impact on the security and defence policies of Estonia, Latvia and Lithuania.

Learning Outcomes

At the end of this module, students should be able to:

- Demonstrate an understanding of how international, regional and domestic political developments affect national security and defence policies.

- Investigate threats and challenges to security and the strategic responses that states and international organisations implement to address them.
- Explain the process of strategy formulation and the relationship between ends, ways and means.
- Distinguish key concepts in international relations.
- Examine the coherence of the political ambitions, defence objectives and force posture of the Baltic states.
- Investigate the significance of allied cooperation and integration in the Baltic region.

M3. Fundamentals and Components

Credits: 8.5 ECTS (1 ECTS = 26 hours of student work)

The aim of Module 3 is to explain military theory, the roles, tasks, capabilities and limitations of the components (Land, Maritime, Air and Special Operations), Communication and Information Systems & Cyber and their contribution into desired joint effects.

Learning outcomes

At the end of this module, students should be able to:

- Explain basic military theories and their relevance to the contemporary military doctrine and operational art.
- Understand the roles, tasks, structure, combat effects and limitations of military components.
- Describe the role and capabilities of each component within the joint operations.
- Analyse the employment of different components and their contribution to joint operations (staff ride to Saaremaa, Operation 'Albion').

Open book oral exam

Description of the assessment procedure

- The examination is conducted with open materials.
- Each student gets three cases, one case pertaining to one module. The student has 1 hour to prepare under supervision in the preparation room.
- The student then proceeds to the designated examination room where he/she presents his/her answers to the assessment board. A video recording of the examination will be made.
- Assessment is differentiated. Points will be calculated based on the formal criteria. The minimum level of points for passing the exam is 40. At the same time assessment board members evaluate whether the learning outcomes are achieved.
- The result of the oral exam will be graded according to the grading matrix.
- The student needs to pass the oral exam to pass the modules M1, M2 and M3. In case of failure in any of the Modules assessed with the oral exam method, the Commandant recommends that the sending and/or sponsoring nation withdraw the student or provide them with a Letter of Attendance declaring that they attended the JCGSC, but did not meet the graduation requirements.

Assessment

The assessment criteria are combined from two lists:

- Learning outcomes of the modules assessed.
- Formal criteria for the oral exam (see below), which also take into consideration learning outcomes of each Module (look above).

The following grading scale will be applied for selected summative assessments (maximum 100 points):

QUALITY OF KNOWLEDGE/ANALYSIS				
5 points	10 points	15 points	20 points	25 points
<p>Failure to demonstrate any understanding of theoretical concepts of M1, M2 and M3. The student is unable to list and/or describe any aspects of theoretical framework and/or key concepts.</p>	<p>Demonstrates <i>basic understanding of theoretical concepts</i> of M1, M2 and M3. Describes some components of theory and key concepts while neglects other significant aspects.</p>	<p>Demonstrates a <i>general understanding of theoretical concepts</i> of M1, M2 and M3. Theory/key concepts are sometimes described imprecisely; some key elements of the theoretical framework/concepts may be missing.</p>	<p>Demonstrates a <i>good understanding of theoretical concepts</i> of M1, M2 and M3. Minor errors may occur when describing the theoretical framework or key concepts.</p>	<p>Demonstration of a <i>thorough understanding of theoretical concepts</i> of M1, M2 and M3. Theory/key concepts are described accurately and in detail.</p>
<p>Use of professional and/or military terminology and abbreviations is incorrect and inappropriate throughout the examination answer.</p>	<p>Use of professional and/or military terminology and abbreviations is mostly incorrect and inappropriate.</p>	<p>Use of professional and/or military terminology and abbreviations is occasionally incorrect or inappropriate.</p>	<p>Use of professional and/or military terminology and abbreviations is mostly accurate and appropriate.</p>	<p>Use of professional and/or military terminology and abbreviations is accurate and appropriate.</p>
<p>No or extremely limited analysis of theory and key concepts.</p>	<p>Very limited and superficial analysis of theoretical perspectives and key concepts.</p>	<p>Analysis of theoretical perspectives and key concepts is superficial meaning that several of the constructs of the theory are applied correctly although minor mistakes occur.</p>	<p>Analyses theoretical perspectives and key concepts in general terms.</p>	<p>Analyses theoretical perspectives and key concepts in depth.</p>
<p>When required, provides examples that are irrelevant and the evidence used is not based on any authoritative source material.</p>	<p>When required, provides examples that are mostly irrelevant and the evidence used is based on a very limited range of source material. The source material may not be credible.</p>	<p>When required, some examples provided are irrelevant and evidence used is based on a limited range of authoritative source material.</p>	<p>When required, provides relevant examples that address the question and relies on evidence that is based on varied, reliable and authoritative source material.</p>	<p>When required, provides relevant examples that address the question on multiple levels, and relies on a wide range of reliable and authoritative source material relevant to the question.</p>

STRUCTURE AND LOGIC				
5 points	10 points	15 points	20 points	25 points
The answer lacks structure and is chaotic.	The answer has a basic structure but the development of the answer is inconsistent .	The answer has a loose structure ; however, development of the answer is sometimes inconsistent .	The answer is generally well- structured and development of the answer is mostly consistent .	The answer is well- structured and development of the answer consistent .
Arguments are unclear, irrational, and/or illogical .	Arguments are generic, mostly unclear, irrational and/or illogical .	Arguments provided are sometimes unclear, irrational and illogical .	Provides rational arguments that are generally clear and mostly logical ; however, some hasty generalisations occur.	Provides valid, rational arguments that are highly logical and relevant to the question at hand.

FORMULATION OF ANSWERS, OPINIONS AND CONCLUSIONS				
5 points	15 points	20 points	25 points	30 points
<p>Answers to questions are incorrect and opinions unsupported. The answer is not anchored in principles, theories, concepts and/or doctrine.</p>	<p>The answers and opinions are to a limited degree based on principles, theories, concepts, and doctrine. There is little evidence of the student's own critical and/or independent thinking. Lack of originality.</p>	<p>The answers and opinions are partially based on principles, theories, concepts and/or doctrine but lack the student's own critical and independent thinking on selected topics. No creative approach is apparent.</p>	<p>The answers and opinions are partially based on relevant principles, theories, concepts and/or doctrine and mostly include the student's own critical and independent thinking about the topics.</p>	<p>The answers and opinions are completely based on relevant principles, theories, concepts, and/or doctrine and include the student's own critical, original and independent thinking about the topics.</p>
<p>Conclusions are illogical and not provided in consistent way.</p>	<p>Conclusions drawn are not clearly elaborated or logical and not linked to the arguments provided to support the answer.</p>	<p>Conclusions are not always clear and logical but provide a general summary of the arguments provided to support the answer.</p>	<p>Conclusions are mostly clear and logical, linked to the arguments provided to support the answer.</p>	<p>Conclusions are clear and highly logical, well-linked to the arguments provided to support the answer.</p>
<p>The student cannot discuss implications/consequences of their argument or own position.</p>	<p>The student mostly cannot discuss implications/consequences of their argument or own position or does so in a very limited way.</p>	<p>The student discusses and critically assesses implications/consequences of their argument or own position in a limited way.</p>	<p>The student discusses and critically assesses some implications/consequences of their argument or own position.</p>	<p>The student discusses and critically assesses major implications/consequences of their argument or own position.</p>

PRESENTATION SKILLS				
1 point	5 points	10 points	15 points	20 point
<p>The presentation as a whole is completely unclear and unfocused.</p> <p>Time management is unsatisfactory – most examination questions remain unanswered or are answered insufficiently.</p>	<p>The presentation as a whole is mostly unclear and unfocused. Frequent repetition of prior answers and/or frequent (or long) pauses.</p> <p>Time management is lacking – significant number of examination questions remained unanswered or were answered only superficially.</p>	<p>The presentation as a whole is somewhat unclear and occasionally loses focus. Some repetition of previous answers. Time management is satisfactory – only some examination questions are answered in sufficient depth.</p>	<p>The presentation as a whole is mostly clear and focused with minor deviations. Time is managed mostly effectively – most examination questions are answered in-depth.</p>	<p>The presentation as a whole is clear and focused without unnecessary deviations.</p> <p>Time is managed effectively – all examination questions are answered in depth.</p>
<p>The student lacks any confidence when discussing ideas.</p> <p>Non-verbal communication (body language) does not convey ownership of the answer and is unconvincing.</p>	<p>The student mostly lacks confidence when discussing ideas.</p> <p>Non-verbal communication (body language) conveys ownership of the answer to a very limited degree and is mostly unconvincing.</p>	<p>The student occasionally lacks confidence when discussing ideas.</p> <p>Non-verbal communication (body language) conveys ownership of the answer but is generally not convincing.</p>	<p>The student is mostly confident when discussing ideas.</p> <p>Non-verbal communication (body language) conveys ownership of the answer and is mostly convincing.</p>	<p>The student discusses ideas in a confident manner.</p> <p>Non-verbal communication (body language) is dynamic and convincing.</p>

Points and grades are calculated as follows:

	GRADE	Points range
Distinction	10	95–100 points
	9	85–94 points
Merit	8	75–84 points
	7	65–74 points
Pass	6	55–64 points
	5	45–54 points
Bare Pass	4	40–44 points
Fail		1–39 points

Distinction 9–10	The student displays an outstanding grasp of the subject matter and very broad level of achievement of learning outcomes
Merit 7–8	The student has fully met the module aim by displaying a strong grasp of the subject matter and attainment of learning outcomes at a very high level
Pass 5–6	The student has met most of the module aim by displaying a satisfactory grasp of the subject matter and attainment of a learning outcomes at a satisfactory level
Bare Pass 4	The student has not quite met the module aim due to a deficient grasp of the subject matter and an attainment of learning outcomes at minimum level
Fail 0–3	The student has failed to meet the module aim due to an inadequate grasp of the subject matter and acquired knowledge and skills are below the minimum level

Comments:

- In a summative assessment consisting of several assignments that are graded in points, each assignment is assessed individually using this grading system. Assignment points will not be rounded up or down. The final grade is determined by the average of all assignment points. The result is rounded up or down to arrive at the final grade.
- Rounding down. Two assignments: $76 + 86 = 162 / 2 = 81$ points (Final grade 8).
- Rounding up. Two assignments: $85 + 92 = 177 / 2 = 88.5$ points (Final grade 9).

One of the critical elements of success in PME and the effectiveness of a military organisation is to use modern training and assessment methods.

.../ it is assessment designed squarely to feed into the learning process and make the learning stronger.

David N. Perkins

Assessment in PME directly affects the development of learners' competencies and has an indirect long-term effect on the quality culture of the entire military organization.

Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives.

William A. Foster

Keeping up with the overall trends in higher education and assessment enhances the quality of PME and by extension, the military system as a whole.

if war colleges are to achieve their educational aims, they ought to take further steps toward emulating higher educational institutions, not try to shy away from their practices.

Jennifer Mittelstadt

PME assessment is connected with a reflective military and battlefield success.

Experts have always asked, "is military education a contributing factor to success in the battlefield and other military activities?" Though it is not an insurance policy from failure, military education provides the tools to adapt to new situations and device ways of overcoming various challenges effectively.

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