# BLOOM TAXONOMY AND SQF MILOF

LoD2

Capt (N) Nedko Dimitrov, Assoc. prof. PhD

# CONTETNT

- Bloom taxonomy for the cognitive domain, Used verbs
- SQF MILOF Used verbs

The overall aim of the Bologna Agreement (1999) is to improve the efficiency and effectiveness of higher education in Europe. One of the main features of this process is the need to improve the traditional ways of describing qualifications and qualification structures.

Learning outcomes are defined as statements of what a learner is expected to know, understand and/or be able to demonstrate after completion of a process of learning

Most learning outcomes describe evidence of learning in areas like knowledge, comprehension, application, analysis, synthesis and evaluation. This area is known as the cognitive domain.

When deciding on the number of learning outcomes to write, the general recommendation in the literature is about six learning outcomes per module. The most common mistake in writing learning outcomes is to use vague terms like know, understand, learn, be familiar with, be exposed to, be acquainted with and be aware of.

It is important to link learning outcomes to teaching and learning activities and assessment. This may be done with the aid of a grid to assist in checking that the learning outcomes map on to the teaching and learning activities as well as to the mode of assessment.

# WHAT IS THE DIFFERENCE BETWEEN AIMS, OBJECTIVES AND LEARNING OUTCOMES?

The **aim** of a module or programme is a broad general statement of the teaching intention, i.e. it indicates what the teacher intends to cover in a block of learning.

# WHAT IS THE DIFFERENCE BETWEEN AIMS, OBJECTIVES AND LEARNING OUTCOMES?

The **objective** of a module or programme is usually a specific statement of teaching intention, i.e. it indicates one of the specific areas that the teacher intends to cover in a block of learning.

# WHAT IS THE DIFFERENCE BETWEEN AIMS, OBJECTIVES AND LEARNING OUTCOMES?

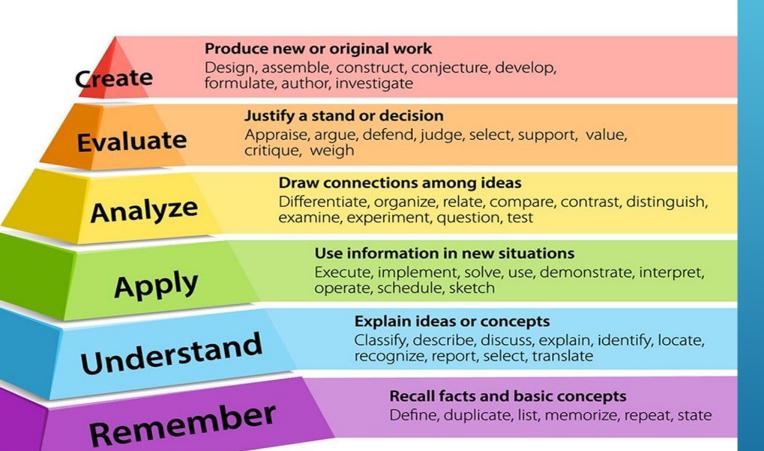
One of the great advantages of learning outcomes is that they are clear statements of what the student is expected to achieve and how he or she is expected to demonstrate that achievement. Thus, learning outcomes are more precise, easier to compose and far clearer than objectives.

# LEARNING OUTCOMES AND COMPETENCES

Competences are defined as "a dynamic combination of attributes, abilities and attitudes. Fostering these competences is the object of educational programmes. Competences are formed in various course units and assessed at different stages. They may be divided in subject area related competences (specific to a field of study) and generic competences (common to any degree course)."

# HOW DO I WRITE LEARNING OUTCOMES?

# **Bloom's Taxonomy**



#### **BLOOM'S TAXONOMY**

#### **CREATING**

USE INFO TO CREATE SOMETHING NEW



design, build, plan, construct, produce, devise, invent

#### **EVALUATING**

CRITICALLY EXAMINE INFO

& MAKE JUDGEMENTS

judge, critique, test defend, criticize

# ANALYZING

TAKE INFO APART & EXPLORE RELATIONSHIPS

categorize, examine, organize,

compare/contrast



#### **APPLYING**

USE INFO IN A NEW (BUT SIMILAR) FORM

use, diagram, make a chart, draw, apply, solve, calculate

#### **UNDERSTANDING**

UNDERSTANDING & MAKING SENSE OUT OF INFO

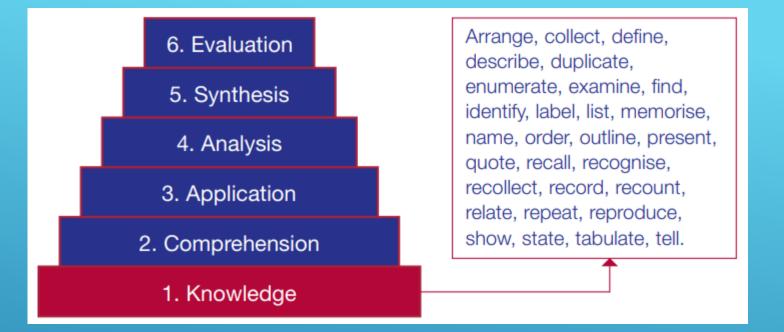
interpret, summarize, explain, infer, paraphrase, discuss

#### REMEMBERING

FIND OR REMEMBER INFO

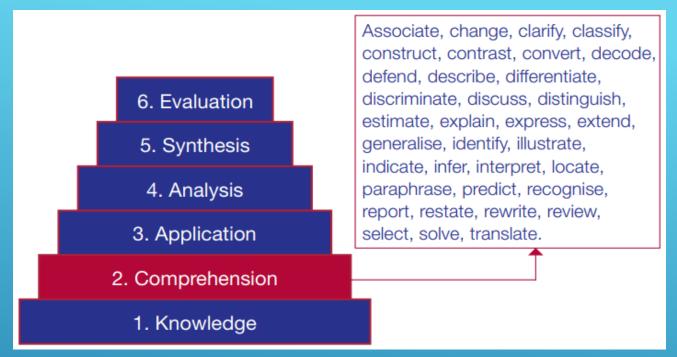


list, find, name, identify, locate, describe, memorize, define



Some **examples** of learning outcomes that demonstrate evidence of **knowledge** are:

- Recall genetics terminology: homozygous, heterozygous, phenotype, genotype, homologóus chromosome pair, etc.
- Identify and consider ethical implications of scientific investigations.
- Describe how and why laws change and the consequences of such changes on society.
- List the criteria to be taken into account when caring for a patient with tuberculosis.
- Define what behaviors constitute unprofessional practice in the solicitor client relations processional practice in the solicitor client relations practice in the solicitor client relations processional practice in the solicitor client relation client relation client relation client relati
- Describe the processes used in engineering when preparing a design brief for a client.



- > Some examples of learning outcomes that demonstrate evidence of comprehension are:
- Differentiate between civil and criminal law.
- ▶ Identify participants and goals in the development of electronic commerce.
- Predict the genotype of cells that undergo meiosis and mitosis.
- Explain the social, economic and political effects of World War I on the post-war world.
- Classify reactions as exothermic and endothermic.
- Recognise the forces discouraging the growth of the educational system in Ireland in the
   19th century

# GENERAL GUIDELINES FOR WRITING LEARNING OUTCOMES

When writing learning outcomes, it is helpful to focus on what you expect students to be able to do or demonstrate at the end of the module or programme.

It is important that learning outcomes are expressed in simple and unambiguous terms so that they are clearly understood by students, teachers, colleagues, employers and external examiners.

# GUIDELINES WHEN WRITING LEARNING OUTCOMES;

- Begin each learning outcome with an active verb, followed by the object of the verb followed by a phrase that gives the context.
- Use only one verb per learning outcome.
- Avoid vague terms like know, understand, learn, be familiar with, be exposed to, be acquainted with, and be aware of. These terms are associated with teaching objectives rather than learning outcomes.
- Avoid complicated sentences. If necessary use more than one sentence to ensure clarity.
- Ensure that the learning outcomes of the module relate to the overall outcomes of the programme
- The learning outcomes must be observable and measurable.
- Ensure that the learning outcomes are capable of being assessed.

# GUIDELINES WHEN WRITING LEARNING OUTCOMES;

- When writing learning outcomes, bear in mind the timescale within which the outcomes are to be achieved.
- Bear in mind how these outcomes will be assessed, i.e. how will you know if the student has achieved these learning outcomes? If the learning outcomes are very broad, they may be difficult to assess effectively. If the learning outcomes are very narrow, the list of learning outcomes may be too long and detailed.
- Before finalising the learning outcomes, ask your colleagues and possibly former students if the learning outcomes make sense to them
- When writing learning outcomes, try to avoid overloading the list with learning outcomes which are drawn from the bottom of Bloom's Taxonomy

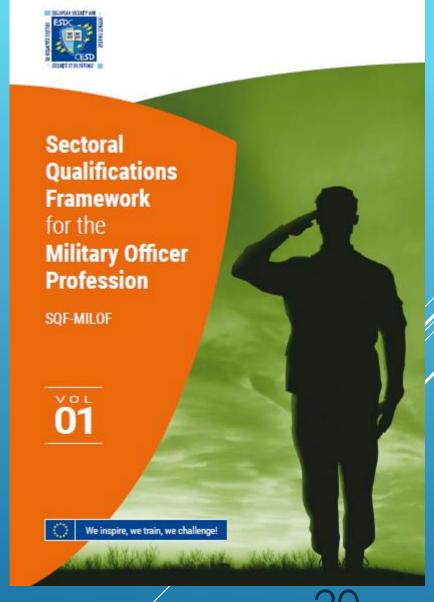
# CHECKLIST TO DOUBLE CHECK THE WRITTEN LEARNING

**OUTCOMES:** 

Have I focussed on outcomes not processes, i.e. have I focussed on what the students are able to demonstrate rather than on what I have done in my teaching?	
Have I begun each outcome with an active verb?	
Have I used only one active verb per learning outcome?	
Have I avoided terms like know, understand, learn, be familiar with, be exposed to, be acquainted with, and be aware of?	
Are my outcomes observable and measurable?	
Are my outcomes capable of being assessed?	
Have I included learning outcomes across the range of levels of Bloom's Taxonomy?	
Do all the outcomes fit within the aims and content of the module?	
Have I the recommended number of outcomes (maximum of nine per module)?	
Is it realistic to achieve the learning outcomes within the time and resources available?	

# SQF-MILOF LEARNING OUTCOMES:

Qualification - a formal outcome of an assessment and validation process which is obtained when a competent authority determines that an individual has achieved learning outcomes to given standards.



# SQF-MILOF LEARNING OUTCOMES: ASPECT OF COMPETENCE AREAS

Competence Area	Description
Military service member	This area describes the officer's ability to operate as a soldier as part of constituted military structure in accordance with the national and multinational military doctrine and law.
Military technician	This area describes the officer's ability to operate a weapons platform/ system and command and control communications, computers, intelligence, surveillance and reconnaissance (C4ISR) systems, and to sustain military operations.
Leader and decision maker	This area describes the officer's role as a leader and manager of subunits/ units/formations, capable of making decisions and influencing the conditions of their organisation.
Combat-ready role model	This area describes the officer's ability and willingness to carry out missions that involve the highest foreseeable risks, and to ensure professional and ethical standards across all military activities.
Communicator	This area describes the officer's effectiveness as a communicator of organisational messages, conveying professional ideas and messages up and down the chain of command and in communication with the external world; the officer as a negotiator and mediator of conflictual situations.
Learner and teacher/coach	This area covers lifelong learning, the management of personal and professional development requirements, for the officer themselves and for others.
Critical thinker and researcher	This area describes the officer as a critical thinker and researcher, a pro-active interpreter of facts and situations, able to assess the impact of changes in the military domain and as a promoter of the military domain/science and art.
International security/ diplomacy actor	This area covers the officer's diplomatic abilities and their role in promoting the organisation's interests and objectives in the international context.

# SQF-MILOF PROPER **LEARNING OUTCOMES**

FOF 6 EOF 7 FOF 5 Competence area (core): Military service member This area describes the officer's ability to operate as a soldier as part of constituted military structure in accordance with the national and multinational military doctrine and law. Comprehensive Advanced knowledge Highly specialised Most advanced of tactics and knowledge of tactics knowledge of employing knowledge of employing ioint/national and and procedures of procedures of employing military organisations small teams and combined arms forces multinational military in a joint/multinational subunits belonging to in accordance with environment in organisations in a national/multinational accordance with complex, unpredictable a single branch / arm in and continuously accordance with national doctrine, across the full national/multinational evolving, multifaceted, regulations and doctrine. spectrum of operations. doctrine, across the full for high intensity spectrum of operations. politically led operating and peace support environment. operations. Practical skills for Advanced skills required Highly specialised skills Most specialised skills developing tactics and to employ creatively required to apply the of employing military and flexibly service principles and norms of organisations and forces proposing alternate options of employing specific forces and employing Operational in a joint environment small teams and their enablers (combat Art, designing and along with civilian subunits belonging to a support) by planning and integrating military organisations. single branch/arm as executing full spectrum forces to achieve desired effects across part of a combined arms of operations in the most subunit/task-oriented the service specific varied circumstances. force. capabilities and a range of military operations in a coordinated manner and considering the unpredictability of the operating context. Take the initiative to Take the initiative and Formulate plans to Innovate the military execute military tasks assume responsibility respond to crisis employment of forces under their responsibility in prioritising the tasks situations and allocate in new strategic and those deriving from assigned by the higher resources to address frameworks by the higher echelon's echelon taking into complex interventions in addressing, through intent, under conditions account the role of other high risk environments specific work and research, the evolving of freedom and speed of actors in the operating by defining the right mix action, and limitations of policies, instruments nature of threats and environment, in accordance with civilian imposed by discipline. and tools to achieve challenges to the law of armed conflict and guidance and direction. internal and external envisaged objectives. rules of engagement in along other instruments security of a nation / high intensity and peace of power. alliance/international

support operations.

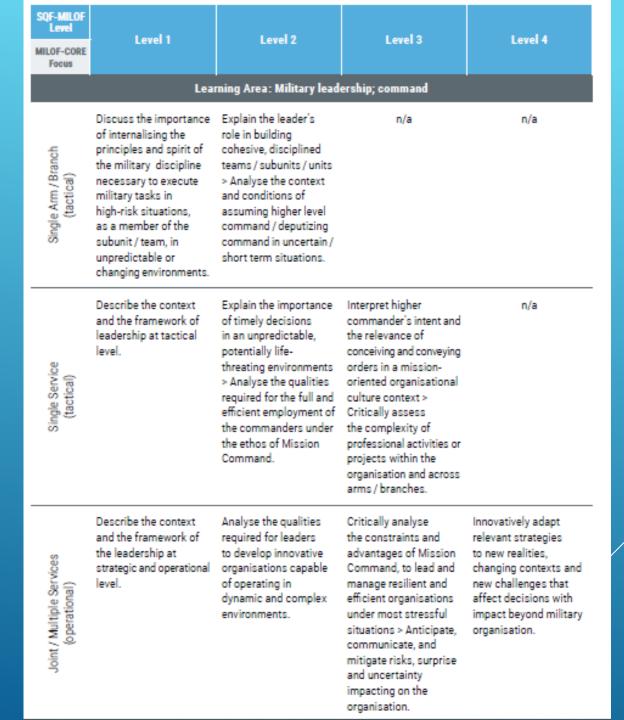
organisation.

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# SQF-MILOF LEARNING OUTCOMES – ORGANISATIONAL ASPECTS:

Organisational Context Level of operations	Description
Single Arm/Branch focus at the tactical level	In this organisational context and at this level of operations, military officers command single arm/branch sub-units (platoons or similar), leading them in operations and exercises, conducting training and performing specific administrative duties.
Single Service focus at the tactical level	In this organisational context and at this level of operations officers lead combined arms military sub-units/units, provide advice to and support higher-level commanders in planning and conducting operations at tactical level, provide support in logistical matters, conduct/supervise training, oversee the welfare of troops and supervise administration and equipment management.
Joint/Multiple Service focus at the operational level	In this organisational context and at this level of operations officers lead military units and formations, provide advice to and support higher-level commanders in planning and conducting joint operations at high tactical and operational levels, provide support in logistical matters, conduct/supervise training, oversee the welfare of troops and supervise administration and equipment management.
Political CivMil focus at the strategic level	In this organisational context and at this level of operations, officers lead military formations and structures, provide advice to and support higher-level commanders/civilian authorities in planning and conducting joint operations at operational and strategic levels, serve as staff at joint multinational headquarters and function as primary advisers to general officers/civilian equivalent in strategic decision and policy making.

# SQF-MILOF CORE LEARNING OUTCOMES



#### **NVNA Key Learning outcomes:**

#### For the competence area: Military Service member

- Explain the principles of combined arms forces employment at the tactical level in accordance with national/ multinational doctrine, across the full spectrum of operations.
- Apply the risk assessment and decision-making process specific to the full spectrum of operations at the low tactical level
- Participate effectively in tactical plans implementation
- Apply at low tactical level the basic norms of national and International Humanitarian Law and their principles relevant to the responsibilities and positions
- Explain the process of strategy formulation at the international and national level as well as the responsible bodies
- Describe the theory and principles of civil-military relations/ democratic control of armed forces

# NVNA Key Learning outcomes:

#### For the competence Area: Military Technician

- List the technical specifications of relevant operating platforms under his/ her responsibility and demonstrate their effective exploitation
- Describe the combat service support capabilities of subunits during full spectrum operations. Explain the unit sustainability
- Explain the C4ISR systems –structure, operation, Electronic warfare.
- Explain the resource management for the military units

## NVNA Key Learning outcomes:

For the competence Area: Leader and Decision-Maker

- Explain the model of team leader role in military organizations in the context of hierarchy and wide spectrum of situations
- Describe the specifics in relationship OF-NCO based on the manuals and ethics
- Describe relevant leadership concepts, theories, principles and good practices. Demonstrate their implications in military environment

## NVNA Key Learning outcomes:

#### For the competence Area: Combat-Ready Role Model

- Demonstrate commitment in actions engaging values and ethics of the military organisation in peace time, high intensity and peace support operations
- Explain the role of international humanitarian law, national law and military regulations in orders issuing and following.
- To know the Naval history and reflect the evolution of arms, forces, organizations, conflicts.
- Demonstrate high level of morale and discipline of subordinates, and appropriate physical and psychological fitness
- Demonstrate gender awareness and its application in military environment
- Demonstrate cultural awareness and its application in military environment

## NVNA Key Learning outcomes:

For the competence Area: Communicator

- Describe the way to convey relevant messages to a broad audience
- Demonstrate ability to provide written and oral orders and reports
- Demonstrate ability to promote opinion and arguments in military environment adjusting to different type of audience
- Demonstrate ability to proper interact with others

## NVNA Key Learning outcomes:

For the competence Area: Critical Thinker and Researcher

- Explain the implementation of the analysis and data processing methods in planning the operations at various levels
- Explain the evolution of the main factors of the operating environment
- Analyse the effects and challenges of new technologies on military domain

## NVNA Key Learning outcomes:

# For the competence Area: Learner and Teacher/Coach

- Describe the models of mentoring, coaching, training and teaching and their adjustment to the military context
- Describe the organisation and procedures of basic military training, drills and exercises at team level or equivalent

## For the competence Area: International Security/ Diplomacy Actor

- Describe security, defence and conflict management in the context of diplomacy
- Analyse the security dimensions of different theories in International relations and the role of different instruments for national goals completion

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# THANK YOU FOR YOUR ATTENTION