

Nordefco ADL Conference

A Reality of Cadet Training in Wartime: Rapid Validation of Distance Education Tools and Experience-Driven Implementation

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INSTITUTION OVERVIEW

MILITARY ACADEMY (ODESA)

Military Academy (Odesa) is a modern inter-armed military educational institution that has deep historical traditions and more than a century-old history.

ACADEMY TRAINS PERSONNEL FOR:

01 Missile and Artillery Weapons	02 Logistics	03 Airborne Assault Troops
04 Special Operations Forces	05 Military Intelligence	06 Marines Troops
07 Provision and Operation of Military Vehicles		

ALSO, ACADEMY PROVIDES:

- Training of military specialists at the bachelor's and master's levels for the Armed Forces of Ukraine and other defence forces;
- Special training for servicemen and employees of the Armed Forces of Ukraine;
- Training on a professional development courses for military personnel and instructors;
- Training on a reserve officers' course.

THE FIRST SHOCK

From Centralized Training to a Distributed Model.

Security came first, but rapid wartime changes could require a long period of rebuilding and system alignment.

01. OPERATIONAL PRESSURE

- ⚔ The Academy became a key training and force-generation hub in southern Ukraine.
- ⚔ The workload increased sharply, and training demand rose significantly.

02. DISPERSAL & DISRUPTION

- ⚔ Cadets and instructors were spread across multiple locations throughout the city.
- ⚔ Many sites lacked communications, equipment, and basic teaching infrastructure.

03. LARGE-SCALE RELOCATION

- ⚔ After the beginning of the massive air attacks, most cadets were relocated to safer regions of Ukraine.
- ⚔ All the necessary infrastructure had been established before their arrival.

04. FIRST LESSON LEARNED

- ⚔ A Moodle platform was launched quickly, but the system was not yet ready for real wartime use.
- ⚔ Even after relocation and infrastructure deployment, it took nearly a year to align tools and needs.

CORE CHALLENGE

WHEN TRAINING DEMAND EXCEEDED TRAINING CAPACITY

The Academy had to prepare more officers while safe opportunities for real training were shrinking.

The central challenge was not continuity alone, but continuity under sharply degraded training conditions.



LESS ACCESS

Part of the Academy's infrastructure became unavailable for standard educational processes.



LESS SAFETY

Constant security risks and air alerts sharply reduced opportunities for practical field training.



MORE DEMAND

Demand for trained officers continued to grow steadily across all operational branches.



FASTER CHANGE

Combat experience changed training needs on the ground faster than the system could adapt.

HOW THE ACADEMY ADAPTED IN PRACTICE

COMPENSATORY MEASURES:



Expanded training abroad

Used foreign training opportunities to compensate for reduced local capacity and limited access to practical training.



Involved new instructors

Brought in additional instructors, including those with relevant wartime and operational experience.



Tested different ways to maintain training quality

Combined distance learning, simulation, revised teaching formats, and temporary organizational solutions to preserve continuity and standards.

THREE KEY ENABLERS

1. Feedback from graduates and operational units

Collected direct feedback from former cadets and field units to identify training gaps and adjust priorities.

2. Expertise of officers with real combat experience

Used the judgement of officers with frontline experience to validate training content and improve its relevance.

3. A growing ecosystem of information systems used for learning

Gradually combined multiple digital platforms and tools into a practical learning environment for communication, content delivery, assessment, and operationally relevant instruction.

✓ Main validation method: field feedback and wartime expert judgement.

A WARTIME LEARNING ECOSYSTEM TOOK SHAPE

No single platform solved the problem; value came from combining them into one working system.

PLATFORM	MAIN ROLE IN THE ECOSYSTEM
 Central Moodle	Main repository for most learning materials
 Academy Moodle	Local course management and institution-specific courses
 Offline Moodle	Testing, grading, and future electronic gradebook
 System “Delta”	Tactics, streams, file exchange, and operational materials
 Google Workspace	Communication, remote classes, and daily academic processes

INSTITUTIONAL AREAS

INSTITUTIONAL AREAS OF WARTIME ADAPTATION

Wartime adaptation was an institutional shift, not a single digitalization project.

DISTRIBUTED LEARNING INFRASTRUCTURE



Locations, connectivity, equipment, and continuity of delivery.

01.

SECURE EDUCATIONAL ENVIRONMENT



Protected access, controlled materials, and resilient workflows.

02.

PRACTICAL TRAINING UNDER SECURITY CONSTRAINTS



Keeping training active when field use and movement are risky.

03.

SIMULATION AND DIGITAL SUBSTITUTES



Using safer tools where real practice becomes limited or unsafe.

04.

RAPID CURRICULUM ADAPTATION



Updating content faster on the basis of current combat experience.

05.

FEEDBACK, EXPERTISE, AND PARTNERSHIPS



Learning from graduates, commanders, experts, and external support.

06.

IMPLEMENTATION CLUSTER

ONE PRACTICAL IMPLEMENTATION CLUSTER I COORDINATE

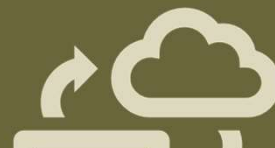
This cluster translates partnerships and technology into concrete training capability.



Simulation:

Did not fully replicate real combat but remained one of the safest and most practical tools available.

01.



Digitalization:

Built the infrastructure and learning environment needed for distributed wartime education.

02.



3D Modelling:

Supported the creation of visual and training content, including the first PBV 302 model.

03.

AI in Education:

Developed with partner support to improve access to knowledge and learning support.

04.



IT Partnerships:

Enabled technology transfer, model development, and new training initiatives.





05.






SIMULATION AND VR: VALUABLE, BUT LIMITED

Digital tools are useful, but training becomes truly effective only when it is grounded in current battlefield realities.

STRENGTHS:

-  Safe
-  Mobile
-  Relatively affordable
-  Useful for repetition and familiarization

LIMITS:

-  Do not fully reproduce real combat conditions
-  Cannot replace field training
-  Their value depends on how well they reflect current combat experience

WHAT CADET FEEDBACK SHOWED US

“ Field training matters most – but only when it reflects the current war.



FIELD TRAINING VALUE

Cadets consistently rated real field exercises as the most valuable learning experience, providing practical readiness that other methods cannot fully replace.



ROLE OF DIGITAL TOOLS

Simulation and digital tools were recognized as useful for familiarization and repetition, but clearly perceived as secondary to hands-on practical training.



REFLECTION OF REALITY

Training effectiveness depended heavily on how closely the scenarios, tactics, and equipment reflected actual, current wartime conditions on the battlefield.



DANGER OF OUTDATED PATTERNS

Even flawlessly organized training fails to deliver real capability if it is based on outdated exercise patterns rather than real, evolving battlefield needs.

FROM PARTNERSHIP TO CAPABILITY

Partnerships became a way to close capability gaps faster than internal resources alone would allow.



PARTNERSHIPS

Swedish Armed Forces & Fynd Reality

Cooperation to create a hub for military vehicle crew training, integrating external expertise into the curriculum.

Norwegian Defense University College

Strategic cooperation to strengthen educational resilience and operational capabilities.



CONCRETE RESULT

PBV 302

First 3D Model in Active Use

Built directly with support from Swedish Armed Forces to address immediate vehicle familiarization requirements before deployment.



WHY THIS MATTERS







- Many graduates first see real equipment only upon arrival at a brigade.
- Some then spend 6-9 months abroad learning how to operate that specific equipment.
- * **The military needs fully prepared officers much earlier.**

KEY TAKEAWAYS

WHAT I WANTED TO SAY IS:

“ The best wartime education model is not the most technological one. It is the one that is validated fastest by feedback, updated fastest by combat experience, and translated fastest into real officer readiness.

THE THINGS THAT IS REALLY MATTER ARE:

 Feedback from graduates	 Feedback from units	 Expert judgement of combat participants
 Processed combat experience	 Comparison with real practical performance	 Partnerships are essentials

Major Artur Derkach | Military Academy (Odesa)

THANK YOU FOR YOUR ATTENTION!

GLORY TO UKRAINE!

