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7 December 2020

**NOTICE**  
AC/340-N(2020)0194 (R)

**PARTNERSHIPS AND COOPERATIVE SECURITY COMMITTEE (PCSC)  
IN POLITICO-MILITARY FORMAT**

**REPORT ON COVID-19 DEFENCE EDUCATION  
DISTANCE LEARNING BEST PRACTICES AND LESSONS LEARNED WORKSHOP  
HELD ONLINE, 16-18 NOVEMBER 2020**

**Note by the Acting Chairperson**

1. Please find enclosed at Annex 1 the Report from a three-day workshop conducted virtually during 16-18 November 2020 and organised by the NATO Defence Education Enhancement Programme (DEEP). The aim of the workshop was to identify best practices and lessons learned by Allied and partner professional military education (PME) institutions in transforming education from residential to non-residential distance learning during the 2020 COVID-19 evolution.
2. The workshop demonstrated a need for more detailed work to identify concrete steps to be taken by PME institutions to transition from resident-only teaching into a blended or hybrid form of instruction. As a next step, DEEP will organise a conference on 12-14 April 2021 in order to develop a NATO publication containing best practices and lessons learned to be employed by a PME school for virtual distance learning transformation and potential courses of action that a PME school could take to implement those findings.

(Signed) Marc Di PAOLO



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**REPORT ON COVID-19 DEFENCE EDUCATION  
DISTANCE LEARNING BEST PRACTICES  
AND LESSONS LEARNED WORKSHOP**

**16-18 NOVEMBER 2020**

In response to the COVID-19 pandemic evolution and its impact on education, the NATO Defence Education Enhancement Programme (DEEP) conducted a three-day virtual workshop on 16-18 November 2020 to identify best practices and lessons learned by Allied and partner professional military education (PME) institutions in transforming education from resident to non-resident distance learning.

A total of 209 participants from 111 PME schools shared their experience from transformation processes utilized in defence education schools to shift from resident to distance learning, as well as instructors' and students' receptivity to a new/different way of teaching and learning in a virtual environment. In addition, they analysed training required for the teaching faculty to be able to design and instruct distance-learning courses and required technology to make it work for both the instructors and the students.

The workshop was organised with presentations from different PME institutions<sup>1</sup>, followed by the conduct of meetings by separate working groups on institutional adaptation, faculty and curriculum development, Advanced Distributed Learning (ADL) technical needs, and English language training.

Workshop findings suggest that many tools for distance learning pre-existed in the schools but had not been sufficiently employed to familiarize faculty and students with their usability; especially with the associated technology. In addition, faculty had not been adequately trained to design on-line curricula and teach distance learning courses.

Summary of identified advantages and disadvantages common to online education:

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<sup>1</sup> Baltic Defence College; U.S. Joint Forces Staff College; Canadian Forces College; Military Academy of the North Macedonia; Chief Warrant Officer Robert Osside Profession of Arms Institute, Royal Military College Saint- Jean, Canada; National Defence University of Ukraine; Georgian National Defence Academy; NATO Defence College

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### **Advantages of online, non-resident instruction**

- No geographical barriers (no need for passports, visas, minimizes need to travel)
- Allows people to work and learn from home
- Allows for personal mobility
- Allows for multi-tasking
- Allows students to have more control
- Allows for more flexible work schedule (no commuting!)
- Allows for self-paced learning (if combined with asynchronous material)
- Allows for faster “refresh rate” digital materiel
- Catalyses increased writing skills

### **Disadvantages of online, non-resident instruction**

- Developing interpersonal relationships more difficult
- Potential technology challenges (e.g. WiFi access, bandwidth, need to maximize virtual platforms)
- Time zone differences (North America, some Partner Nations)
- Lecturers: could limit desire, lecture quality, and lack of technical capability
- Different types of stress (e.g. if not at a good remote internet location)
- Requires new skills (either as prerequisites or part of a course)
- Requires a different type of discipline
- Simultaneous Interpretation more challenging
- Complicates assessments of communication skills
- Challenges to Cohesion, Networking, Social Capital

## **I. Best Practices/Lessons Learned: identified within five working group areas**

1. Institutional Adaptation: For a professional military education institution to transform/adapt distance learning:
  - Implementation of various ‘active’ or student-centred teaching methods. These include problem-based learning, scenario-based learning, and inquiry-based learning.
  - Conducting exercises online or in a hybrid manner.
  - Adjust schedules for the planned start and graduation of cadets several years into the future to ensure that quality of education and training can be maintained.
  - Reschedule the start of the next semester/term of current cadets to continue their education and training.
  - Flexible curriculum.
  - Preparing faculty to design and instruct Distance Learning courses.

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- Execution of classes with direct engagement between students and teachers.
  - Heavy emphasis on the technical transformation.
  - Technology required and associated faculty training.
  - Major reorganization requirements.
  - Quality and capability of equipment and internet network reliability.
  - Weekly after-action review/rapid adaptation.
  - NATO-based cloud service.
2. Faculty Development: Best ways to train faculty to be able to design curriculum and instruct it in a distance-learning environment. Challenges around three main areas Teaching, Digital, and Social Literacy:
- Less time for planning and course development.
  - Assistance to design and facilitate instruction may be limited.
  - Support systems for faculty and students may be limited or unavailable.
  - Not all faculty will be comfortable teaching in an online format.
  - Time may be limited for ensuring quality measures for design and teaching.
    - Delivering the High-Quality Instruction Online in Response to COVID–19 Faculty Playbook.
3. Curriculum Development: Best ways to transform a specific lesson/course from resident to a distance learning format:
- Curriculum development, implementation, and review should form a permanent cycle for both resident and distance learning courses.
  - Preparation of online courses and lessons require more effort from teachers and students/participants than resident courses.
  - Need to maintain an adequate number of virtual in-person sessions of instructors and their students.
  - Lack of in-person social aspects difficult to compensate in DL curriculum design.
4. Advanced Distributive Learning (ADL): Technology needed for distance learning instruction:
- Tutorials, micro-learning videos for staff training.
  - Extend faculty training to course support, researchers, guest lecturers, mentors, etc.
  - Videos to familiarize students with online learning platforms.
  - Language, multi-language, interpretation for synchronous webinars.
  - Time management for both faculty and students.
  - Communication (proper learning objectives, etc.) for joining instructions, and student support.
  - Working on instructor and student technology – need a reliable audio setup and internet.
  - Use breakout rooms often with summary at the end.

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- Flipped classroom: to meet when it's essential to practice.
  - Lectures can be delivered in the form of taped recordings – to be used for non-interactive student-faculty classes or as preparatory work.
5. English Language Training (ELT): Best ways to train faculty for the unique challenges associated with transforming/adapting to a virtual/blended learning environment. All in addition to previous areas which are also applicable for ELT:
- Forming teams of teachers (and IT personnel) working together (team teaching).
  - Identifying teachers who are more skilful and use their potential.
  - Enabling (and encouraging) supervisors to observe on-line classes and provide feedback.
  - Dividing students into smaller groups for better on-line work.
  - Facilitating purchase and/or creation of virtual materials (funds and extra time for teachers).
  - Enforcing a policy that time needed for language training (in and out of the classroom) is supported by students' superiors.
  - Use the opportunity to recruit good teachers that cannot work in a single physical location.
  - Ensure security of ELT testing and validity of results.

## II. Proposed Action/Recommendations

### 1. Institutional Adaptation

- ADL legal utilization policies within NATO Allied and partner nation National Armed Forces (Institutions) for common understanding.
- Need to determine what kind of services and software is needed to support ADL in a PME institution.
- Implementation of joint advanced distributive learning (ADL) solutions. applicable for several institutions or the entire Armed Forces.
- Must have on-line education technology software support like LMS and videoconference servers or look for a cloud solution with subsequent certification.
- Will require dedicated school administrative entities (e.g., branches, centres, departments) to support faculty/student ADL utilization.
- Organizational and change management principles are needed to ensure technology integration (teaching staff needs support from their institutions at the highest level).
- Provide funding and central support to teaching staff that are re-engineering their course designs to best use technology-enhanced approaches.
- To conduct surveys on a permanent basis with faculty and students to identify problematic issues and take steps to resolve them in a timely manner.
- Provide the possibility of collective work with the contribution of each to a single project.

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- Recognize and reward teaching staff who reuse/remix/republish openly available learning materials.
- Available and reliable video-conferencing capability are provided.
- Faculty and student access to reliable WiFi and appropriate computer equipment and/or access to such (Laptop, et...) is secured.
- User friendly yet cyber secure institutional policies on internet access and usage are in place.
- A user friendly LMS to facilitate all online modalities - (synchronous, asynchronous, and blended learning) is established.
- Leadership of PME institutions secure dedicated time for faculty to learn and develop their remote learning skills and techniques.

### 2. Faculty Development

- Prior to teaching students, the faculty needs dedicated training and practice with the use of unfamiliar software.
- Avoid multiple video conferencing systems and LMS options.
- Standardize remote learning while maintaining academic flexibility.
- Leverage already existing distance learning expertise, if any, to train and prepare resident faculty for remote learning.
- The learning objectives for well-written curricula do not need much (if any) revision from their original form and content. The change to online teaching is one of a shift of delivery medium, not a shift in educational outcomes. Consequently, many lessons written for resident learning can be quickly translated to non-resident distance learning by varying the delivery but not the content.
- Military computing systems can be suboptimal for online teaching. Policy constraints and limited capabilities could result with no video or access to online resources.
- Synchronous classrooms are limited by bandwidth and very little video sharing is currently conducted. This makes human interaction more difficult and has a negative effect on learning. Over time, this could be ameliorated with new Learning Management Systems.
- Faculty development training should use the same Learning Management System and practice the same activities that both instructors and student learners will use. The "Rule of 3" should be followed: it takes three times to do any online task to feel comfortable so one can mentally move on to learning and/or the next bigger digital task.
- There is greater instructor-student learner interdependence in the online learning environment. Instructors should leverage the technical skills and competence of student learners to augment, modify, and even redefine learning, since good adult learning is about stimulating inquiry and involvement amongst students.

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- Faculty should not settle for merely substituting online lessons and activities to match resident ones. There is great opportunity to augment, modify and even redefine learning online with its advantages (e.g., additional research and writing assignments).
- It takes an instructor more time to prepare online instruction than resident instruction. The curriculum content should be prepared so it can be executed independently. Instructors should facilitate and review classes, and then conduct follow-up actions (assessments, lesson adjustments, etc.).
- The number one factor that most contributes to a positive online learning climate and course is a prepared, motivated and understanding instructor.
- Instructors do not have to be perfect, but they must do their best to be engaged, proactive, communicate well, and flexible, while also understanding that the student's time is precious.
- A contingency plan should be developed for unexpected distance learning emergencies.

### 3. Curriculum Development

- Ensure that the same resident and distance learning course focuses on the same objectives:
  - Determine what skills the student should be able to demonstrate after completion of the course.
  - Reduce the number of objectives but do not compromise them.
- Do all possible to keep similar types of tasks, exams, and grading for the same resident and distance learning course in order to avoid accreditation or fairness issues.
- Bring curriculum developers and classroom instructors together:
  - Discuss what to learn and how to learn.
  - Ensure more interaction/team approach.
  - To ensure the ability to deliver the class, discuss lessons/lectures with other peer instructors prior to the actual class presentation.
  - .Communication is essential with other faculty, curriculum developers, ADL technical specialists, and students.
- Continue to require thorough preparation and evaluation of courses/modules/lessons:
  - Prepare and distribute readings and reference material ahead of time.
  - Set clear deadlines for the preparation of lessons.
- Immediate feedback is essential from both students/participants and peer instructors.
- Maintain/increase the attention span of students/participants:
  - Do not underestimate the human factor.
  - Motivation is crucial for both students and instructors.

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- Provide information to students in a timely manner (calendars, points of contact, accessible readings, IT equipment, etc.).
- Blend of synchronous and asynchronous learning provides flexibility to students/participants.
- Employ multiple teaching methods.
- Provide easy-to-follow material and avoid “cognitive overkill” where possible.
- Trust in your students/participants – and be prepared to help them when frustrated/blocked.
- Live online sessions will be needed – try to get as much direct interaction with the students/participants as possible.

#### 4. ADL Technical Needs

- Create a Reference Guidance for eLearning/ADL Technical Requirements.
- Create a DEEP online instructor certification program hosted by NATO DEEP Portal, composed of:
  - Training 1 - use of synchronous tools in training and education: conduct of effective webinars (e.g., BBB, ADOBE CONNECT, ZOOM, etc.).
  - Training 2 - LMS training (main LMS features needed for basic online course design and online student management).
  - Training 3 - E-learning/ADL tutoring (online teaching methods, to include an emphasis on interactive methods).

#### 5. English Language Training (ELT)

- Successful delivery of on-line training:
  - Provide training and support for instructors to keep them motivated and reduce their feelings of isolation.
  - Ensure extra preparation time.
  - Establish strong links between synchronous and asynchronous activities.
  - Allow time for development and/or transfer of materials on-line.
  - Use of authentic/existing on-line materials for language learning.
  - Instructional objectives need to be clearly defined to allow efficient progress towards overall goals of the programme.
  - Organise team teaching to ensure exchange of experience and lessons learned.
  - Organise and encourage observation of classes by supervisors in order to give instructors meaningful feedback and support.
  - On-line classes should be smaller than classes in the classroom to allow enough time for communication and one-to-one work (the overall goal of language training is learning to communicate and this is not possible without communication forming a large part of instruction).
- Efficient Use of Technology:
  - Ensure that students have cameras and microphones of reasonable quality to allow communication with the instructor and their colleagues.

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- Instructor training is essential.
- Initial training provided by IT specialists.
- Identify the more skillful teachers and create mixed teams.
- Identify tools and methods for formative and summative assessment.
- Establish rules about the use of time (teachers should respect students' free time and students should know teachers are not available 24/7).
- IT should be considered as only a tool in the process of achieving instructional objectives.
- Classroom Assessment:
  - Use a variety of methods and techniques.
  - Conduct frequent evaluation.
- High Stakes Testing & Certification:
  - At the present time, remote proctoring software for high-stakes testing is too experimental and/or expensive for national language testing purposes. In order to maintain test security for both paper-based and computer-based tests, in-person proctoring must be conducted. The only exception is testing speaking, which could be done online with a camera to ensure both the identity of the test taker and that cheating doesn't take place.

### III. Way Forward

The workshop demonstrated a need for more detailed work to identify concrete steps to be taken by PME institutions to transition from resident-only teaching into a blended or hybrid form of instruction. The majority of participants indicated that they do not imagine going fully back to traditional forms of resident in-person education and there is a need for detailed planning at every PME institution to prepare the institutions themselves, their faculty, and their current curricula to be prepared for a post-pandemic environment.

As a next step, in coordination with the War Studies University in Warsaw, DEEP will organise a conference on 12-14 April 2021. Panels would be conducted to review papers drafted in the period between the two events that elaborate on the findings developed by the current workshop. The intent would be to determine how best to implement the November 2020 workshop's identified best practices/lessons learned in the three DEEP programme areas, curriculum development (what to teach), faculty development (how to teach), and administrative and managerial processes (institutional adaptation) that would have to be applied for a PME schools' successful transformation to distance learning teaching. Working groups will be organized to come together to draft papers describing ways (courses of action) and means (required resources) to implement the best practices/lessons learned; not simply identifying what they are, but the detailed work needed to move to implementation.

A NATO publication, similar to the Non-Commissioned Officers Reference Guidance, would be published containing best practices/lessons learned to be employed by a PME school for

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virtual distance learning transformation and potential courses of action that a PME school could take to implement those findings. Resources permitting, this reference guide would be combined with an online version. The publication would be structured into two main sections:

- a) The first containing both the best practices and lessons learned; and
- b) A section detailing how to implement them for a school.

This publication will be published in summer 2021 both in hard copies and as an online version available on the NATO webpage.