

CREATING A LEARNING ENVIRONMENT

An effective learning environment within the Cadet Program is achieved by applying principles related to cadet development and how the brain learns best. The following nine principles will help you create that effective learning environment. Experience, interaction and stimulation of the senses and fun are key factors in building this learning environment.




1. Developmental Periods

Learning in the Cadet Program is designed around three progressive, developmental periods (DPs). The mental, physical, emotional, and social development of a cadet are considered in these age-appropriate DPs. Cadets develop and ultimately refine higher-level thinking skills (reasoning, reflective thinking, problem solving) as they progress through each DP.

DP 1: Experience-Based (Years 1 & 2: ages 12-14)	DP 2: Developmental (Years 3 & 4: ages 15-16)	DP 3: Competency (Years 5 & 6: ages 17-18)
<p>Cadets have well-developed automatic responses however, the area in the brain that aids higher-level thinking is just beginning to mature. Effective learning is active and interactive with lots of hands-on experiences.</p>	<p>Cadets are ready to start developing higher-level thinking skills such as problem-solving skills. Effective learning is interactive and hands-on, allowing cadets to make some decisions within the learning process.</p>	<p>Cadets are refining higher level thinking skills. They are ready for more responsibility and independent learning.</p>
<p>Lessons/activities should:</p> <ul style="list-style-type: none"> • be active and interactive; • be very structured; • be closely supervised; • provide minimal choice involving minimal risk (such as: choosing a topic/question to complete from a list of similar ones); • have clear and concrete goals; and • include simple processes. 	<p>Lessons/activities should:</p> <ul style="list-style-type: none"> • be active and interactive; • provide some structure; • allow cadets to make some choices (such as deciding roles to take in group activities); • have clear goals; and • allow some choice in process. 	<p>Lessons /activities should:</p> <ul style="list-style-type: none"> • be active and interactive; • be organized and run by cadets with coaching from officers; • have goals that may be more abstract in nature; and • allow planning of real activities and proceed with follow-through.
<p>Activities started in a lesson should end in that same lesson.</p>	<p>Activities started in a lesson may extend over 2-3 lessons.</p>	<p>Activities started in a lesson may extend over 4 or more lessons.</p>

2. Learning Styles

People learn in different ways. There are three primary learning styles; visual, auditory and kinesthetic. While people utilize a combination of all three learning styles, one style often predominates. When preparing lessons it is important to consider all three learning styles and vary instructional, learning and assessment methodologies accordingly.

Visual	Kinaesthetic	Auditory
<p>Visual learners learn best through seeing, they think in pictures, they benefit from visual aids and they take meaning from the instructor's position, gestures and body language.</p>  <p>Teaching Tips:</p> <ul style="list-style-type: none"> - provide written material and directions - use colorful posters, pictures, models and diagrams 	<p>Kinaesthetic learners learn best through moving, touching and doing and they benefit from hands-on activities.</p>  <p>Teaching Tips:</p> <ul style="list-style-type: none"> - use items that can be handled and moved - use hands-on activities - use movement as part of the lesson 	<p>Auditory learners learn best by hearing information, talking and having discussions. They take meaning from the instructor's tone, pitch and speed of delivery.</p>  <p>Teaching Tips:</p> <ul style="list-style-type: none"> - repeat information for emphasis - group discussions - use rhymes, mnemonics and acronyms

A Leader's Guide to Learning in the Cadet Program

3. Relevant and Meaningful

The best learning happens when the material is presented or experienced in a way that makes it relevant, meaningful and applicable to the individual. You can make a topic more relevant to your cadets by showing why it's important and where they can use the information. When cadets make connections between what they are learning and something they already know, it helps them remember, understand and apply the material. One of the best ways to help cadets make these connections, and understand why a topic is important, is to use concrete and relevant examples and explanations taken from the elements of the cadets' community, recent events, or shared knowledge and experiences.

4. Music



Music can be a very effective learning tool in promoting creativity and enhancing the learning environment. Music can be used to enhance concentration during activities and tests, motivate cadets, and set an emotional tone in a learning environment because it activates many parts of the brain. Incorporate music in the learning environment by playing it in the background during group activities, using rhymes to cue for answers, or playing slow/soft music during evaluations.

5. Safety

Creating a physically and emotionally safe atmosphere minimizes stress and promotes a relaxed mental alertness that is optimal for learning. To foster a safe learning environment an instructor should manage conflict, minimize risk, follow all safety guidelines, and implement consistent routines and consequences. Cadets should be encouraged to form meaningful relationships with each other and practice harassment prevention and effective conflict management.



6. Stress



Stress may be either positive or negative and will affect memory and learning. Positive stress helps to create new memories and stimulate creative thinking, and may be generated from such things as facing challenges and new experiences. Negative stress may impair memory, divert concentration, cloud judgment and disrupt learning. It may result from a lack of tools needed to perform a task or feeling a loss of control due to such things as time constraints. In stressful situations considerations must be made for safety and risk management. Informing cadets of expectations, incorporating physical activity, providing time to process information and the use of traditional stress management techniques (eg. Muscle, relaxation, visualization, taking deep breaths), may reduce negative stress.

7. Movement

Movement and physical activity promote learning and stimulate memory pathways by reducing stress and strengthening key areas of the brain. Integrate movement in the learning environment by providing hands-on and whole body activities including stretching, team building exercises, model building, role-playing, and debates. Engage cadets in moving to a common rhythm in drill, dance and skits. Physical activity will boost energy in the classroom and help to focus the cadet's attention.

8. Sleep

Sleep is critical for the brain to process learning and solidify memory. Adolescents require approximately 9.25 hours of sleep daily. Sleep deprivation negatively impacts thinking, and creativity, as well as compromising physical safety. Cadets who have not had enough quality sleep will become fatigued, accident prone, have a short attention span and will be less likely to retain information. Instructors should consider the cadets' sleep needs when scheduling training and allow adequate time for rest. Leaders should also model good sleeping habits.

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9. Nutrition

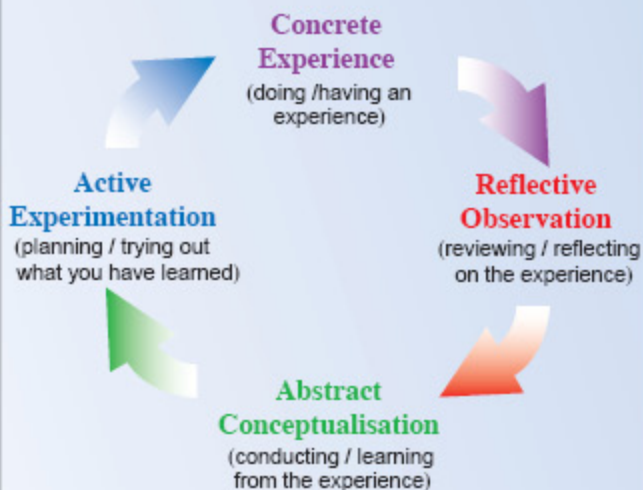


Proper nutrition and adequate hydration are essential in order to increase attention span and maximize learning and retention of material, therefore it is important that all cadets drink plenty of water and eat a balanced diet as recommended by the Canada Food Guide to Healthy Eating. Maintaining appropriate levels of nutrition and hydration requires regular and frequent consumption of food and beverages. Consequently, it is necessary that cadets be provided with regular opportunities for consumption before, after and during classes, activities and exercises, and that water be made available at all training sites.

INSTRUCTIONAL METHODS

Learning in the cadet program is largely centred on experience-based activities. This involves learning knowledge and skills from direct experience. Youth learn effectively from direct experience and can then apply the knowledge and skills in new situations. The four stages of the experiential learning cycle may be considered and applied to all activities within the Cadet Program, regardless of the methodology chosen.

EXPERIENTIAL LEARNING CYCLE DR DAVID KOLB



Stage 1: Concrete Experience: cadets have an experience and take time to identify and define what the experience was. Sample activities: direct observations, simulations, field trips, reading.

Stage 2: Reflective Observation: cadets reflect upon and examine what they saw, felt and thought while they were having the experience. Sample activities: discussion, journals/logs.

Stage 3: Abstract Conceptualization: cadets work to understand and make connections from the experience to new or different situations. Sample activities: interview, discussion, model building, analogies, and planning.

Stage 4: Active Experimentation: cadets look ahead to, and plan for, the application of skills and knowledge acquired to future experiences. Sample activities: Simulation, fieldwork, and compositions.

Interactive Lecture:

This instructor-driven methodology combines both lecture and interaction to meet lesson objectives. Lecture portions of the lesson are offset with relevant activities such as: videos with discussion, games to confirm learning, and completion of handouts.

Simulation:

Is a realistic representation of a situation (that cannot take place in the real environment) used to teach performance objectives without risk or complication. Cadets are active participants in the learning process. Instructor feedback is critical for learning. Many activities can be simulated such as sailing and first aid.



Field Trip:

Theoretical knowledge is reinforced through participation in an activity in a real-life setting. Prior planning helps to ensure all pre-training and safety standards are met. Field trip activities are planned and carried out to achieve clear objectives that are understood by cadets. Examples can include trips to areas of local interest, hikes or boat trips.

Demonstration and Performance:

Cadets observe the instructor performing the task in a demonstration and rehearse it under the supervision of the instructor. A good example of this is drill instruction, where cadets are shown a movement and given the opportunity to practise and perform it.



Group Discussion:

Cadets discuss issues, share knowledge, opinions, and feelings about a topic in small groups to meet a specified goal. The instructor's questioning is flexible and minimal, and aims at encouraging cadets to explore their own experiences and opinions through peer interaction.



Guided Discussion:

Cadets are guided to reach performance objectives by drawing out their opinions, knowledge, experience and capabilities through a series of open-ended, leading questions, responses and follow-up-questions. The instructor summarizes throughout and concludes effectively to ensure the objective is met.

Game:

Games are used with one or more participants to practise skills, apply strategies and enhance teams. It is critical that the game support learning through the provision of a challenging activity that allows for skill practise, or knowledge confirmation. Games are a fun and interesting method to introduce a topic, expand cadets' understanding of a topic, or review material.

Role Play:

Cadets are assigned roles requiring them to interact with others in responding to various realistic situations. The instructor identifies the purpose of the role-play, provides the cadets with enough background information to help them accurately play their assigned role and motivates them to become more fully involved in the activity. Debrief after the role-play is essential to connect the activity with the objective.

Problem-Based Learning:

Cadets analyze a problem, apply the steps in the problem solving method, and work toward solving the problem in small groups. Problem-based learning requires cadets to participate and interact with each other while developing critical thinking skills. Instructors choose problems that stimulate thought, reinforce learning, and relate to the cadets' interests and needs. Throughout the exercise, instructors pose thought-provoking questions and guide the cadets without influencing their decisions.

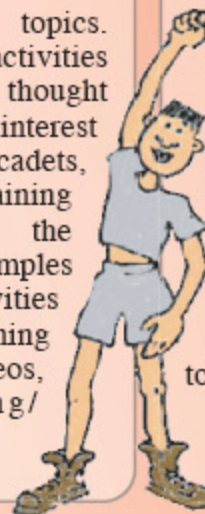
Self Study:

The instructor provides materials and instructions to the cadets and then the cadets learn the topic independently. Instructors can include self-study components as a part of an interactive lesson or as a method on its own.



In-Class Activity:

Encompass a wide variety of potential activity-based learning opportunities that can be used to reinforce instructional topics. In-Class activities should provoke thought and stimulate interest among cadets, while maintaining relevance to the objectives. Examples of these activities include learning stations, videos, brainstorming/debating.



Practical Activity:

Practical activities encompass a wide variety of activity-based learning opportunities that can be used to reinforce and practise instructional topics or to introduce cadets to new experiences. Practical activities should stimulate interest among cadets and encourage their participation, while maintaining relevance to the objectives.

Case Study:

Cadets are given a written problem situation or scenario to which they respond either individually or as a group in order to achieve an objective. The problem or scenario should match the experience level of the cadets and they should be given enough time either before or during the instructional period to analyze it. Responses to the case should be recorded under four headings: Facts, Assumptions, Problems and Solutions.

Peer Learning:

Cadets in the same class teach each other. This allows cadets to learn from each other while also developing coaching, feedback and instructional skills

Tutorial:

The instructor works directly with a cadet to ensure the successful achievement of learning objectives. This is useful to teach highly complex skills, knowledge and procedures, or to provide remedial training to cadets. This method focuses on the cadet's needs and the individualized assistance provided is motivating for the cadet. Tutorials are easily adaptable to the cadet's learning pace and learning style.

On the Job Training:

OJT prepares cadets to perform a job within the Cadet Program. Cadets learn job related behaviours/skills and practise them through performance of the job. An instructor facilitates learning and coaches each cadet through this process. Besides learning the job skills, cadets practise and refine peer and self-evaluation skills as well as skills in providing feedback. All cadets have an opportunity to reflect and provide feedback on the performances.

