

The Joint Air Power Competence Centre (JAPCC) has developed an Education and Training (E&T) model that allows concrete E&T courses to provide students the opportunity to improve their Command & Control/Leadership Competence towards the aim of "accepting chaos, followed by a much more efficient control of chaos".

It takes no history buff or military expert to confirm the fact that operations involving armed forces are both highly dynamic and bear a high degree of complexity. This theory can be supported by the countless check lists, procedures and regulations ultimately aiming at lessening the occurrence of probable and real negative actions and effects.

Point of Departure

A chaotic situation, or simply "chaos", can be described via its characteristics of unpredictability and opaqueness. For example, the game of roulette is unpredictable as the players can never truly know which number will be rolled next; it is an unpredictable game to win.

Now, imagine a system where both characteristics are pronounced to a high degree; a potential reaction would be to recede. So, then, what turns a system into something highly unpredictable? Dynamic components and processes. What nurtures opaqueness? Perceived complexity. An inevitable deduction: Military operations and activities always happen within chaos and also inevitably contribute to it.

chaos. The winner will be the one who controls that chaos, both his own and the enemies."

— *NAPOLEON, Emperor of France*

Cognition

Attempts to supersede this chaos with a neatly arranged design (battle plan) and effectively managed supervision by applying regulations, procedures and algorithms are doomed. High casualties and defeat become unavoidable.

A most drastic example can be found in the process of the Royal Navy in the Victorian Age which found its anti-climax in the first half of the [Great War](#) .

Turning Lemons into Lemonade

Instead of placing all efforts towards dissolving chaos, "immerse" into it, even exploit it. Instead of fighting against chaos, understand it as a "system of systems" where recognized results lead to only partially foreseeable effects. Taking this into consideration is key; not striving for "perfection". Replace BEST practice with NEXT practice.

Permanent awareness of the necessity to change, to adapt and to influence paired with a deliberate relinquishment of a comprehensive knowledge about everything at every time

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Written by Colonel Uwe L. Heilmann, German Air Force, JAPCC, Head C4ISTAR Branch

increases the chance to prevail in chaos with a higher degree than the adversary.

Approach

Education and Training (E&T) decision-makers and their staffs have to push students into "chaos" and trigger the idea of "change of patterns" as an effective modus operandi via their self-awareness.



This process is strongly supported if the students, i.e. the recipients of E&T, are removed from contemporary military operations and their daily Command & Control (C2) routine and environment as much as possible. This procedural method prevents them from falling back into existing individual routines, fostered by their most subjective experiences, nourished by ignorance and prejudices. This individually perceived reality, subjective experiences in combination with ignorance and prejudices deny them the chance to recognize, identify and describe patterns.

Key Elements of the JAPCC E&T Model

[First, the theory and application of constructivism](#) .

Constructivism is a scientific approach towards learning and teaching that identifies the individual learner as the decisive factor. The individual only learns if they want to learn. Sustainability regarding the assimilation of knowledge can only occur if the decision to learn was positively made beforehand. It is the teacher's prime mission to trigger the students' decision to learn.

Second, the idea of "not telling the students WHAT to think but inviting them to experience possible ways HOW to think". A teacher's doctrine derived from the first key element.

Third, the use of commercial conflict simulation games (called CoSims or ConSims). As broad as their variety in systems and topics is, they all have one thing in common: they are not computer-based.

CoSims provide an immense diversity of topics, offer to challenge the students on all levels of command, and force the students to either succeed or fail within the given micro cosmos.

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Additionally, they are inexpensive and offer students the chance to learn about history, geography, military doctrine, and improve the English language skill.

Playing CoSims is not the end but the means and feedback by the teachers, who turn into observers, is vital for this E&T model. This feedback must be exercised constantly, on occasion, scheduled, person-to-person, and to the whole group.

Whenever the JAPCC conducted this E&T program, it earned more than enthusiastic response from the students.

The JAPCC is always ready to introduce this E&T model to new customers. To experience it is to understand its positive effect.

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