Managing Complexity in Uncertainty: The European DAhoy Project

The COVID-19 crisis has illustrated the difficulty of having to make decisions in a complex and uncertain context. Can we prepare for it and develop skills to be better equipped to deal with this type of situation?

The European DAhoy project, which has just been completed and been awarded the Erasmus+ label, has looked into this issue. IMT Atlantique and its partners (1) have designed a framework for decision-making skills adapted to higher education and vocational training, to better train students and professionals from all sectors to deal with VUCA situations (Volatile, Uncertain, Complex and Ambiguous).

The DAhoy innovation project brings together 7 partners from 5 European countries. Coordinated by IMT Atlantique, its objective is to improve the training provided in higher and vocational education institutions in order to prepare employees to better manage crises. In short, to "manage complexity in uncertainty".

For the past 3 years DAhoy has been working to develop training tools and a framework designed to prepare students and employees to better cope with unpredictability in professions and in career paths, through practical experience. Transversal decision-making skills in the VUCA environment can
be integrated into existing curricula through innovative courses, adding to business knowledge and skills. In order to develop pedagogical tools around decision-making, which present scientific, technical, but also human and societal components, DAhoy has shared and compared many pedagogical practices and methods.

After an initial phase devoted to conceptualising learning outcomes around decision-making, the DAhoy project organised several weeks of training and confronted teachers, staff and students with around thirty situations requiring decision-making that involved increasing levels of complexity.

Siegfried Rouvrais, a researcher-lecturer at IMT Atlantique and coordinator of the DAhoy project, talks about "Serious Games organised outdoors by the Naval School, to confront leadership in decision-making ... the use of professional simulators in Scotland to strengthen coordination capacities in decision-making ... increasingly complex rescue exercises in Brittany, in very cold waters ... At the end of 2019, in Iceland, with more than 200 engineering students, the management of a pandemic crisis at national level in connection with several stakeholders in the decision-making and rescue chain...".

What the students say:

**Bich-Tien Phan**

**Bich-Tien Phan**, a 3rd year student, participated in this pandemic crisis management session: "The fictitious strategies that we put in place during the session were generally similar to those currently applied (confinements, etc...) but the fictitious situation we studied was extreme and exaggerated. I think that the "decision-making ability in uncertain context" competence could help me in my professional life. During the first confinement, this skill was indeed necessary for companies to implement strategies during the first wave, which had a major impact on business. In my opinion, the crisis management session could be useful and interesting during our training at school".
Marguerite Arvis

Marguerite Arvis has had the opportunity to participate in the DAhoy project twice, once at the Ecole Navale during an intersemester and once for the Disaster Week in Iceland: "In both cases, I enjoyed the experience very much and I think I came out of it with an improved range of skills. In particular, although we had many experiences of working in groups in engineering school, the DAhoy activities were extremely formative in terms of team cohesion and crisis management. Indeed, I particularly appreciated the crisis context during the exercises (the disaster week pandemic, the context of the challenges at the Ecole Navale) because by experiencing this extra pressure in an atypical school setting, I felt that we learned how to work in a more united way with effective decision-making. Personally, I think I have improved my ability to listen to my team-mates and to make well-considered decisions under pressure, skills that are essential in any professional or personal context.

With regard to the current crisis, the experience in Iceland has above all reminded me of the need to respect the decisions of authority, because even imperfectly timed decisions are difficult to make and their success depends entirely on everyone's solidarity".

The sessions made it possible to define a pedagogical framework and to reflect on the integration of pedagogical capsules into existing curricula, through a flexible integration and continuous improvement of transversal skills. Education professionals can now access the results of this work. Resources are available in the form of learning kits and a VUCA toolkit to support capacity assessment in so-called complex situations.

(1) École Navale (France), City of Glasgow College (Écosse), Reykjavik University (Islande), Scottish Credit and Qualifications Framework (Écosse), Fundacio Universitat Empresa des Iles Baléares (Espagne), Fondation des Régions Européennes pour la Recherche, l'Education et la Formation (France)

More information

www.dahoyproject.eu

For higher education and training institutions wishing to find video testimonials; see the project channel Bich-Tien Phan's Testimonial can be found on YouTube.

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