

## **Promising practice**

**University:** Corvinus University of Budapest (CUB) and Corvinus Business School (CBS)

**Academic discipline:** Decision Sciences

**Course title:** Decision Techniques

### **Course description:**

#### **Context**

Decision Techniques is offered to all Bachelor business students at CBS, it is compulsory for some of the specializations and elective for others. This results in 300-500 students per semester, there were 420 students in fall 2015.

#### **Aim of the course and key elements:**

The course introduces a wide variety of techniques for the various steps and problems of decision making. The aim of the course is for students to become reflective and autonomous decision-makers and active citizens, equipped with instruments for the process of problem-solving. To achieve this aim the course:

- relies on a full process of problem solving (from the exploration, identification of the problem through several steps to making a decision on the best alternative and also discussing the potentials for implementation);
- with a highly practical and personal (individual and group) experience (among others: experiential learning with 7 tools);
- on problems selected and brought into class by students (some of them personal, some of them business, but almost all of them with strong broader social implications);
- with moral and cognitive psychological reflections required on every (weekly) step of the process.
- The course is organized in (mostly interactive) bi-weekly lectures for all students together (7 lectures), and weekly seminar groups (14 seminars - 11 seminar groups of approx. 40 students this fall).

These are given circumstances by the curriculum. Beyond that there are

- problem groups (7) in each seminar group working on a problem solving process for a problem they have selected for themselves, the process is enabled and monitored by the tutor of the seminar group;
- consultations, where the problem groups and the tutor discuss how to facilitate a selected tool that will be introduced to the seminar group by the given problem group;
- an evolving reflection paper, where problem groups are presenting their weekly achievements in the process, including their moral, psychological reflections on the process of problem solving as well as on the ongoing dynamics of their groups.

**Teaching and learning process:**

Students have a highly practical experience on the process of problem solving throughout the course. The problems they work with may range from personal, through organisational to social problems. Each student selects a problem she would like to understand/solve utilizing Photovoice technique. The photos taken by the students represent problems from their everyday life, problems they are aware of and have a certain importance to them, or problems they wish to raise awareness to (e.g. possibilities of disabled students at the university, working besides studying, leaving Hungary after BSc studies or staying, selective waste collection, work-life balance, etc.). Then problem groups are formed according to the interest of the students for the same problem. The newly established problem groups are working on their own problem solving processes week by week, documented in a google document which is open for all members of the seminar group.

The course embraces 77 decision techniques. Several of them are introduced in lectures and seminars in shorter or longer case studies. 7 of them are applied within the problem solving process of the problem groups, and these are facilitated and experienced by the students themselves on a more personal, embedded level, as a way of experiential learning. The tutors' role is to monitor and to supervise this process. The applied decision techniques are used as tools to enhance the student's responsibility for personal and social issues while reflecting on the cognitive biases implied and the moral and cultural embeddedness of their decisions. The course also provides the opportunity to explore group dynamics of the established student groups as they continuously reflect on their own working processes.

Before getting to the RRI keys, it is important to highlight that these keys are involved in the course both explicitly and implicitly. This differentiation might be important because the keys are partly targeted in an institutionalized way (described in syllabus and textbook, outspoken in lectures and seminars), they are part of the intended learning outcome – that is called explicit here. Some other elements of the RRI keys are “just happening”, and several students are experiencing those while others are not. The possibility of learning (changes in attitudes, reflection on moral, cultural issues) exists, it may happen – and does happen – in students' life, but these kinds of outcomes and impacts are highly dependent on personal willingness to change, deepness of their understanding and experience of the process, the way they are touched in this common working and reflecting process. It is not assessed – but actually recognized, it is a set of implicit elements and impacts.

In sum, all of the RRI keys below are integrated in the course either explicitly and – sometimes even more – implicitly. Besides ticking the keys, there are explanations, illustrative examples included in both facets.

### **Learning outcomes:**

- To understand and apply a great variety of decision techniques relevant at the various stages of the problem solving process
- To be able to select the appropriate techniques in a given situation based on thorough reflection on the potentials and limitations of the tools
- including moral, cultural, cognitive reflections
- on the individual, organizational and social/societal levels.
- To develop interpersonal skills such as 'active listening', 'assertive communication'

### **How students' learning is assessed:**

Assessment is based on the following elements:

- work of the problem group (facilitation of a decision technique in seminar and google document, 40%)
- 2 tests (40%)
- seminar activity (20%)

The whole working process of the student-groups happens week by week during the term and is monitored by the tutor – including the evaluation of the writing process and also the oral presentation. This oral presentation is more about facilitating a decision technique for the whole seminar group and introducing the problem at hand.

In relation to the students' projects – both in content (referring to the subject of the chosen problem) and on the process (referring to the student-groups dynamics), learning is happening on a deep level through their personal experiences that are facilitated by the tutors. Feedback is provided by the tutor regularly in the process.

Tests are assessing most of the explicit elements and messages of the course in the form of short essay questions.

### **How students learn with civil society organisations through this course:**

It is not a defined requirement of the course, but the possibility exists – and in each seminar group at least one team (out of 7) starts building a relationship with a civil organisation in order to understand their problems and to discuss it with CSO experts, and this relationship might go deeper too.

Thus, the involvement of CSOs does not occur in a direct way. Students after choosing their problem of interest may turn to and work with a certain CSO with whom they can share their goals and values. In this sense their project gets a validity check and they find new ways of reflecting upon reality – connecting their inner world with the social, political, ecological, economic environment. E.g. in the case of the “How to enhance the education of Roma students” project, the group got involved with the work of a CSO based in the University working with and for Roma students. During the project on “migration in the Hungarian education system” students founded a CSO themselves. Students working on the questions around “gay marriage” invited the representatives of the LMBT Association to class when facilitating one of the decision techniques.

### **How students learn about dimensions of RRI through this course:**

#### **Reflexivity**

‘Reflexivity’ and ‘reflectivity’ are the keywords of the educational intent implemented at several levels:

- reflection is explicitly required from students on/after every seminar on problem solving and group processes, and the decision techniques from a moral, cultural, psychological/cognitive point of view;
- reflection is going on beyond that as well by peer learning: opportunities are provided to follow each other’s processes (open access google documents; problems/work introduced in class by facilitating one decision tool by each problem group; problem groups may introduce their processes on an interactive lecture with posters and pitching). This transparency regarding the work of the problem groups trigger a reflection on their own problems, engagement, processes, results among the students, which is not required explicitly, but it is strongly there implicitly.
- reflection on the interpersonal skills: the course consciously introduce techniques such as ‘active listening’, ‘assertive communication’, forming ‘dialogue’ type of communication and providing and receiving feedback.

To the understanding of the course tutors, this reflectivity formulates the basis of the other RRI dimensions in the following ways:

When problem groups work on understanding, structuring and solving their problems they need to discuss their role as individuals in this process and the social implications of the issues raised, such as their personal responsibility. While presenting and working on their theme during the 3-month-period, their knowledge deepens and their attitude and feeling of responsibility towards the subject of their projects and to their groups also gets stronger.

**Responsiveness**

Responsiveness as a capacity to react to a particular challenge is included in the course by e.g. the aim of promoting the students to become active citizens. For example, when launching a CSO based on their problem group in this course, or when they start following the events of the problem area. Many of the students visited conferences related to their topic during the course (e.g. on child abuse in psychiatry, segregation in education). Many also contacted and joined CSOs (e.g. Hakösz – Students for the Service of the Community). These are good examples of responsiveness.

**Inclusion**

Group processes during the course and many of the problems selected by students are aiming at inclusion. The first (group processes within the seminar group) might look marginal for the first sight, since university seminar groups at CUB are understood to be quite homogeneous, even by the students themselves. They face and explore their diversity in the process, and they do try to overcome the tensions of it by the contribution of the supervising tutor in order to create an inclusive work environment. The vast majority of the problems selected for the group work have an inclusion/exclusion feature that is reflected upon (topics related to refugees, Roma and other ethnic or religious minorities, homosexuals, prostitutes, segregated and marginalized people in education, health system, etc.)

**Anticipation**

The aim of the course is not less than to anticipate responsible, active citizens, who are more and more reflective and autonomous in their decision making processes, and able to foresee not only the direct and personal outcomes of their decision but also the long term, leveraged impacts to a great number and diversity of stakeholders. This is especially important a fairly new in a business school setting.

<b>RRI keys</b>	<b>Explicit</b>	<b>Implicit</b>
<b>Public engagement/ societal engagement</b>	Among the discussed themes and decision techniques participation, inclusion and engagement is a key aspect, several participatory techniques are offered and discussed (1 chapter, 1 lecture, 1 seminar are directly dedicated to it) and applied (Photovoice and Deliberative polling are tasks to accomplish).	The problem groups may contact the stakeholders of the problem they work on. At this course it is more like community engagement than public/societal engagement.
<b>Open access</b>	Textbook is free to download for the students and there is no limitation on sharing it. Discussions are revolving around being fully open to the public, but this has not yet been achieved.	All the students' documentation on their research projects with all the comments of the tutors are open for all members of the seminar groups. The transparency feature of this is probably more important than being open access.
<b>Gender and diversity</b>	Cognitive biases are discussed in the textbook and in seminars, providing and understanding of the processes of perception and interpretation, including e.g. stereotypes, schemas, intended and unintended prejudices.	The selected problems may involve conscious reflection on issues of gender and diversity (e.g. working on problems connected to migration/refugees, minorities, poverty, homosexuals, etc.).
<b>Ethics</b>	Moral philosophies and instruments for engaging in ethical decision making and behaviour are discussed in the textbook, lecture and seminars, and is a required reflection each week. Moral (and cultural) embeddedness is discussed at every step of the students' problem solving processes in class and in the written documents.	This – together with the other RRI dimensions (except the open access here) – takes students to a journey of sensitization to various issues and aspects.
<b>Governance</b>	Just like in the case of 'engagement' a solid base enumerating and explaining relevant techniques is provided. Not only the question of who shall be involved and engaged at individual, organisational, social/societal levels is discussed but also the involvement, participation and engagement of the students to the selected problem in particular and in governing our future in general is touched upon.	In the process of problem solving the problem groups are asked to perform a stakeholder analysis which helps them to list the various knowledge holders in their topic. In order to establish real contacts to key stakeholders and to collect first-hand information, the issue of governance may also be an experience for the students: they face the convergence and divergence of communicated messages and the real acts.
<b>Science education and outreach from higher education</b>	This course is developed similar to action research. There is not only an educational intent behind it but also a research-oriented/scientific reflection on it.	Post-normal science, interpretative approach of science of philosophy, reflective and critical thinking – are in the background of the worldviews of the tutors. These standpoints define the attitudes, aims of the tutors also when teaching this course.

<b>Sustainability</b>	With certain techniques (and even with the whole course) a sort of attitudinal change is anticipated by the tutors. With the hope that these attitude changes happen in a more reflective way and it is not just a short temporal state but as the beginning of a sustainable process.	Certain problem groups are directly connected to all three - ecological, social and economic – pillars of sustainability (e.g. do we need an artificial, tourist attracting chair-lift in one of the most attractive untouched and protected natural area in the Hungarian countryside?; fooling costumers by the corporations' marketing activity).
<b>Social justice</b>	Similar to the topics on: 'engagement'; 'ethics' and 'governance'. Beyond that there is one important step at the end of the course, where all problem groups need to elaborate on the social/societal level of their selected problems. Even if it was originally a problem on individual or organizational level, students have to take it to the level of society, formulating the relevant (justice) questions and problems there as well.	Similar to the topics on: 'engagement'; 'ethics' and 'governance'.

**RRI keys integrated in the course:**

Public engagement/ societal engagement; Open access; Gender and diversity; Ethics; Science education and outreach from higher education; Governance; Sustainability; Social justice

**RRI process requirements integrated in the course:**

Anticipation ; Reflexivity; Inclusion; Responsiveness

**Contact information:**

Réka Matolay, Corvinus University of Budapest  
[reka.matolay@uni-corvinus.hu](mailto:reka.matolay@uni-corvinus.hu)

**In summary:**

What makes this course a promising practice in a business school context and/or in general:

- (i) Experiential learning with hundreds of students at the same time
- (ii) enabling a diversity of potential processes (connection, reflection, etc.) within the group of students, and between students and the stakeholders of the selected problems (including CSOs),
- (iii) promoting almost all RRI keys in an explicit or implicit way,
- (iv) strong peer learning via transparency, and
- (v) the evolution of the course itself into this direction,
- (vi) that is reinforced by the reflective approach of the tutors: Decision Techniques is a course developed via an action research type of activity, looked at not only from an educational but also a research point of view.

The latter two aspects have not been described previously, therefore there is a short summary of this below:

The course has evolved from its inception in 2008 being a “toolbox” to become a learning process of “reflective decision making”. There has been strong RRI-related elements already at the beginning, such as the moral and psychological aspects of the selection of the appropriate decision making tool from the toolbox. The transformation of the course in the past 7 years has driven Decision Techniques to a semester long project that is not only focusing on the diversity of potential problems and tools, but also on the social embeddedness of the problems and tools plus on the (RRI-)competences of the decision maker. Thus, it is a promising practice also because of the changes the course has gone through: refocusing and redesigning a course in a way that keeps the original goals but enriches them with quite many new aspects and layers relevant from an RRI point of view. Reflective decision making and reflective management has become the core identity of the Department of Decision Sciences during the previous year, and that has also been discussed in conference papers and presentations.