Study Programme in Systems Thinking/System Dynamics

15 and 16 November 2011 & 29 and 30 November 2011

Landgoed Mookerheide, Molenhoek (nearby Nijmegen)

ABK
anders organiseren

Radboud Universiteit Nijmegen



Study programme in Systems thinking/System dynamics

The Department of Methodology at the Nijmegen School of Management and the Executive Degree Programme in Business Administration at Radboud University Nijmegen will be jointly offering a course in **Systems Thinking/System Dynamics** on **15 and 16 November 2011 & 29 and 30 November 2011**.

About this course

Learning organisations have earned much attention in recent years. However, learning is not as straightforward as it might seem, and there are many obstacles on the way to becoming a learning organisation. One major obstacle to learning is that people can only absorb and process a limited amount of information at a time. Feedback on decisions taken is frequently ambiguous. This is especially true when organisations have to deal with complex and strategically critical situations, known in the business world as 'messy problems'. Issues become entangled, a team's decisiveness splinters; disagreement can arise as to the nature or even the very existence of a problem. When this happens, people tend to resort to ad hoc decisions, seeking a quick fix with little thought for the long term. The reasons why these decisions are unsuccessful are often misunderstood, or simply ignored: it seemed like a good idea at the time, so why didn't it work? It is precisely this type of thinking that prevents organisations from learning from experience.

The unexpected consequences of decisions that have been made are visible at various micro and macro levels. For instance, the ever-increasing demand for cheaply produced food has led to a myriad of problems in food safety; consumer action groups monitor and respond vocally to organisations' policies on human rights and the environment; years of skimping on employee relations or machine maintenance causes irreparable damage within organisations; questionable accounting decisions give rise to unease or even distrust among shareholders. Still, decision makers all too often fail to consider the complexity of the matter at hand.

Closed loop thinking, on the other hand, focuses upon the idea that decisions made by managers and policymakers should be based on feedback and other signals coming from within a complex system. In other words, people identify undesirable situations – problems – and then make the appropriate decisions to ameliorate these situations. These decisions bring about reparative action, after which follow-up decisions can be made. In this way a circular feedback cycle develops, which forms a continuous process consisting of information about a problem, corrective action to be taken, newly emerging facts and so on. This, in turn, creates a forward dynamic thrust within an organisation.

System dynamics, systems thinking and group model building

Learning about messy problems implies bringing existing ideas and expertise into the open and organising them into useful structures. Model building is an invaluable tool during this process. Systems thinking can help us to visualise the underlying relationships and interactions at work in a problem situation; a systems thinking model illuminates the situation and identifies starting points for intervention. System dynamics adds the possibility of developing a computer simulation of a problem. This method exposes not only the nature, but also the intensity of relationships. The consequences of various solutions can be simulated over time. Often the behaviour shown on time graphs reveals that what first seemed to be effective for the short term, has detrimental effects in the long run.
Group model building can help a team to stop making ad hoc decisions and increase its learning potential. In this process, the fundamentals of a problem are approached by building a model, which subsequently leads to improved communication between group members. The results achieved by teams that have used group model building have been remarkable. For example, one management team that had spent more than a year fruitlessly discussing which strategy to pursue found that, by applying the method, only three two-and-a-half hour sessions were necessary for them to reach a consensus and to produce a policy plan that everyone could endorse. A standoff that had dragged on for months was brought to a close, quickly and effectively.

Programme objectives

Skills

Upon completing this programme, you will be able to

- Identify and map out complex, amorphous problems using a combination of systems thinking and system dynamics; you will possess the tools attributing problems to systems, rather than to individuals;
- Analyse situations more thoroughly by recognising the difference between the symptoms of problems and the problems themselves. This will enable you to develop more effective problem-solving strategies;
- Kick-start organisational learning processes, implementing systems thinking and system dynamics as effective tools in a learning paradigm.

Knowledge

Upon completing this programme, you will

- Be familiar with a range of systems thinking approaches and the possibility each offers for implementing system dynamics;
- Understand the core principles of systems thinking and system dynamics (employing feedback and non-linear thinking as opposed to open loop and linear thinking);
- Have a better understanding of the relationship between the dynamics of a social system and its structure and the feedback process (dynamic thinking versus static thinking).

Target group

This study programme has been developed for external and internal advisors, policy staff and managers who are involved in strategic decision making.

Language

In principle, this programme will be offered in Dutch. However, should speakers of other languages enrol English will be the working language, although questions may still be posed in Dutch.

Methods

In addition to knowledge transfer, the emphasis in this programme will be on developing skills through practical exercises. Sessions will employ model building and management flight simulators as a means of training in system dynamics. Today's management flight simulators include models that have been based on situations in existing organisations, which means that you can transpose the insight you have acquired directly to a similar situation in your own organisation. You can also model your own problem situations during a hands-on session.

Dates, location and programme fee

This programme consists of two separate sessions, each lasting two days. These sessions will be held at Landgoed Mookerheide, Molenhoek (nearby Nijmegen).

Sessions have been planned for the following dates:

Systems thinking and group model building:

15 November 2011 from 9:00 a.m. until 7:30 p.m., followed by a dinner;
16 November 2011 from 9:00 a.m. until 5:00 p.m.

System dynamics:

29 November 2011 from 9:00 a.m. until 7:30 p.m., followed by a dinner;
30 November 2011 from 9:00 a.m. until 5:00 p.m.

Participants may choose to attend one or both two-day sessions.

Fee: Full programme: € 2500,–
Either two-day session: € 1250,–

Registration

Please send your completed registration form to:
ABK RU Nijmegen, Postbus 9108, 6500 HK Nijmegen, The Netherlands.
You can also fax the form to +31 24 361 54 63.

Further information

If you would like more information, please contact ABK RU Nijmegen by phoning +31 24 361 21 08.
For specific details about the programme itself, please contact the programme coordinator Etiënne Rouwette, Ph.D. at +31 24 361 14 68 or by e-mail at e.rouwette@fm.ru.nl.

REGISTRATION FORM
Systems Thinking/System Dynamics

THE UNDERSIGNED,

surname / initials / title: _____

first name / sex: _____ [M / F]

date of birth + place of birth: _____

PRIVATE

address: _____

postal code + city: _____

phone number: _____ mobile number: _____

e-mail: _____

BUSINESS

organization: _____

address: _____

postal code + city: _____

p.o. box: _____

postal code + city: _____

phone number: _____ mobile number: _____

fax: _____ e-mail: _____

job title: _____

department: _____

INVOICE ADDRESS business/private

organization [if applicable]: _____

attn: _____

address: _____

postal code + city: _____

would like to register for (please mark the applicable):

- ❍ the complete programme of Systems Thinking/System Dynamics
- ❍ the session Systems Thinking on November 15 and 16, 2011
- ❍ the session System Dynamics on November 29 and 30, 2011

The undersigned confirms to submit the programme fee (€ 2500,– or € 1250,–) after receiving the invoice.

city _____ date _____ city _____ date _____

signature
[the participant]

signature
[if applicable: the paying organization]

Please send this form to: ABK RU Nijmegen, Postbus 9108, 6500 HK Nijmegen or fax it to +31 24 361 54 63
Information: tel. +31 24 361 21 08, e-mail abk@fm.ru.nl

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