VAN THINKING

Introduction to Scientific Thinking

ST001A

Course Brochure

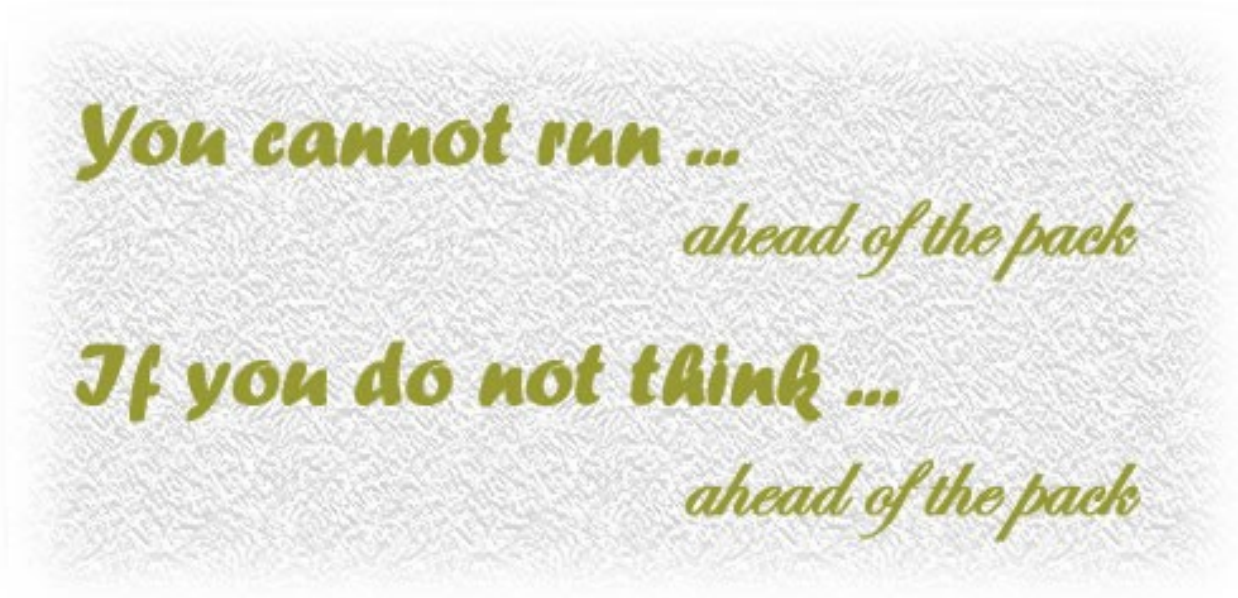

Table of Contents

Background....2
Objective....2
Curriculum....3
Theme 1: Understanding Scientific Method and its success....3
Theme 2: The Scientific Productiveness Features and their use in knowledge generation and problem solving....3
Theme 3: The Scientific Capability Features and their use in knowledge generation and problem solving....3
Theme 4: Practical Application in a Problem Case agreed upon with each participant....3
Course Format....3
Online Format....3
Live Format....4
Accreditation....4
Communcation and Further Information....4
Enrol Yourself for this Course....4
References....4

Background

Science has proven itself over centuries to be the best vehicle for reliable, objective and useful knowledge generation. When it was applied for the first time to the social sciences (like management and organizational sciences), it proved to be less successful. The initial response was to develop and pursue other more holistic approaches, whereas science was seen to be "reductionist" and therefore not suitable for these new environments.

Upon further investigation it was found, however, that the salient features of science that were well-defined for its traditional field of application were not configured correctly for the new environments, and therefore it failed to produce the same level of success when applied in these new areas.

What are the salient features of science and how can they be configured correctly to ensure success when applied to fields other than the traditional application of "scientific method" in the natural sciences? Extracting these features and training people to apply them appropriately would transfer the success of science to areas where the spectacular success of science in knowledge generation has yet to be exploited fully.

Objective

This introductory course extracts the essence of scientific thinking and provide the participants with a practical way to apply scientific thinking to their environment.

Upon completion of this course the participant will know what those salient features that ensures the success of the scientific endeavour over the centuries are, how they interact with one another, and how to configure them for your current environment. This will enable you to exploit the high success rate of science in your environment and excel in uncovering relevant, useful knowledge that gives you the best understanding possible regarding the problems you encounter.

Our objective is to help you be more creative and innovative in problem solving as you engage problem solving in a new and productive way.

Curriculum

Theme 1: Understanding Scientific Method and its success

An overview is given of what scientific method is and how it is used in knowledge generation and problem solving.

The participant will understand this powerful vehicle for knowledge generation and problem solving and how to apply it to practical problem cases upon completion of this theme.

Theme 2: The Scientific Productiveness Features and their use in knowledge generation and problem solving

The Scientific Productiveness Features are defined and how they feature in the scientific endeavour is described. Their respective roles in knowledge generation and problem solving are highlighted and how they interact to ensure the proven success rate is discussed. These features are the enablers of the unparalleled success of science in knowledge generation.

The participant will understand what these features are and how they interact during knowledge generation and problem solving upon completion of this theme. You can expect to be able to identify these features for your problem case.

Theme 3: The Scientific Capability Features and their use in knowledge generation and problem solving

The Scientific Capability Features are described, and how they are utilised during knowledge generation and problem solving is described. These features are important in addition to the productiveness features to ensure high quality knowledge generation and problem solving.

The participant will understand what the Scientific Capability Features are and will see how they are used in the practical application during the next theme.

Theme 4: Practical Application in a Problem Case agreed upon with each participant.

Each participant chooses a practical problem case in his/her environment to engage using the dynamics of scientific thinking in cooperation with the Van Thinking Course presenter. This is the most interactive part of the course where regular interaction with the Van Thinking course presenter is enhanced through group discussions and presentations.

The main aim of this practical application is to practice the use of the Scientific Productiveness Features.

Course Format

This course is offered in two formats, namely on-line and live in a selection of countries.

Online Format

You need broadband internet access to participate in this course online, as well as a headset with microphone for the online discussions. No software will be loaded to your computer, all resources are available on-line.

The course is a combination of text-based reading, video material and online interactive activities (some in

person with the course presenter, while others are on-line group activities).

Some activities are graded, so that participants can obtain Van Thinking Certification if the required grade is obtained. Other participants can apply to receive a letter of attendance from Van Thinking.

Live Format

The course is currently offered live in South Africa and New Zealand. Contact us via the email supplied below if you are interested to participate in the live course.

The Live course is and intensive, full time week course, offered at your venue. The assignments are done during work hours and some also require some after hours work.

Some activities are graded, so that participants can obtain Van Thinking Certification if the required grade is obtained. Other participants can apply to receive a letter of attendance from Van Thinking.

Accreditation

Van Thinking provides a certificate to all successful candidates that obtain the required grade. Each Certificate contains your unique identifiers that will allow future inquiries to check the validity of the Certificate.

Those participants who complete attendance, but choose not to follow the accreditation route through the course (I.e. they do not want their activities to be graded) will receive a Certificate of Attendance upon request.

Communication and Further Information

You can read more about this course, enrol to participate, or read some of the articles we have online regarding Scientific Thinking.

Communicate with us regarding this course via email using st001a@vanthinking.com

Course Presenter: Mariana van der Walt

Enrol Yourself for this Course

You can enrol for participation in the next online cycle of this course. Once you have completed the enrolment process, we'll contact you to provide you with the information you need to enter the course on the start date of the course.

You will also receive an email reminding you of the start date within the week before the course is due to start.

References

Van der Walt, M, "Knowledge Management and Scientific Knowledge Generation ", Knowledge Management Research & Practice, (2006) 4, 319–330.

Van der Walt, M., De Wet, G., "A Framework for Scientific Knowledge Generation", Knowledge Management Research & Practice, (2008) 6, 141 - 154.