

Structured Innovation

Introduction

Structured Innovation is a term to describe the combination of two simple and common approaches to thinking about the elements of a particular problem or issue, which together form the basis for systematically innovating and generating new ideas. These two simple techniques are attribute listing and morphological analysis. The approach was developed by a Swiss scientist called Fritz Zwicky in the 1940s and 50s as a method for systematically structuring and investigating the total set of potential combinations and approaches to solving multi-dimensional, non-quantifiable, problems. The rationale is described below (on the www.mycoted.com website):

... Imagine you have a product that could be made of three types of material, in six possible shapes, and with four kinds of mechanisms. Theoretically there are 72 (3x6x4) potential combinations of material, shape and mechanism. Some of these combinations may already exist; others may be impossible or impractical. Those left over may represent prospective new products. This method of can be extended to virtually any problem area that can be structured dimensionally ...

This approach can be used by groups for developing new kinds of programmes, services and strategies within development and humanitarian organisations.

Detailed description of the process

The first step is get the group to work together to list the attributes of the programme, service or whatever it that is being developed. Attributes are elements, properties, qualities or dimensions of the thing being scrutinised. As an immediate example, a list of the attributes of this toolkit might include: i) its length; ii) layout and design; iii) content; iv) accessibility; v) format; vi) quality; vii) relevance; viii) applicability; ix) potential user base; x) demand; and xi) production costs.

The next step builds on the attributes in a systematic manner. Using the attributes previously listed as column headings, the group should draw up an options table. The table should then be used to brainstorm as many different variations of the attribute as possible, and these should be written down in the relevant columns. The final table should ideally show many possible variations for each attribute.

The next step is to use the table to think through new ways of addressing the problem at hand. This can either be done by deliberately selecting interesting combinations, or by selecting one entry from each column randomly. Mixing one item from each column leads to new combinations of attributes, leading to potential new products, services or strategies. Finally, the potential innovations need to be evaluated in terms of practicalities, usefulness and potential constraints. Those which pass this process can be piloted in the live environment.

Example: Mainstreaming social development at SDC

In order to develop activities to be undertaken as part of a communications strategy for mainstreaming a social development programme at Swiss Development Cooperation (SDC), the RAPID team undertook this process. The attributes we identified were as follows:

- Reason/benefit: Why is the client communicating?
- Content: What is the client communicating?
- Audience: To whom is the client communicating?
- Channel: How is the client communicating?
- Frequency/timing: When and how often is the client communicating?

These were set out as column headings on an options table, and variations brainstormed as shown below:

Figure 8: Options table for knowledge sharing activities, with two ideas generated through the structured innovation approach

Reason/benefit	Content	Audience	Channel	Frequency/timing
<i>Profile building</i>	Results and outcomes of project	General public	Press/TV	Annual
<u>Awareness raising</u>	Political and social conditions	Policymakers	Publications	<u>Monthly</u>
Influencing and shaping public debate	Vision and mission of project	Beneficiaries	Internet/email	Weekly
Changing attitudes	<u>Beneficiary perspectives</u>	Researchers	Personal networks	Daily
Contributing to academic debate	<i>Opportunities to get involved with project</i>	<i>Other agencies</i>	Conferences or meetings	Timed with specific policy windows
	Need for additional funds	Donors	<u>Bulletin boards/newsletters</u>	Scattershot
	Progress update	<u>Staff in own organisation</u>	<i>Community of practice</i>	<i>Ongoing</i>

NB: *Idea 1 in italics, Idea 2 underlined.*

Looking across the table from left to right, interesting new activities might have been:

Idea 1 (marked by italicised text): Communication of opportunities to get involved with other agencies via a shared community of practice, as a means of building cross-organisational collaboration. (This was generated by deliberately selecting one entry from each column.)

Idea 2 (marked by underlined text): Sharing beneficiaries' perspectives on the project with staff via a monthly newsletter. (This idea was generated through randomly selecting of one entry from each column.)

Obviously, some of these may have been practical novel ideas for the programme, whereas some were not. This is where experience and knowledge of the team was vital in testing out ideas.

Sources and further reading

- Hovland, I. (2005) *Successful Communication: A Toolkit for Researchers and Civil Society Organisations*, ODI Working Paper 227, London: ODI.
- Mycoted is a website in Wiki format which is dedicated to improving creativity and innovation for solving problems worldwide. It is open to all, and can be written by all. See: www.mycoted.com.
- Also see: www.mindtools.com.