How to measure creativity on 8 different levels in your organization

Publication

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Mrs Nel M. Mostert (Nel.Mostert@Unilever.com) worked as a Certified Professional Facilitator Creativity & Innovation Processes at Unilever R&D, Vlaardingen, The Netherlands.

Unilever is a Fast Moving Consumer Goods company for Foods and Home & Personal Care with a mission "To help people feel good, look good, and get more out of life". Unilever employs 180 000 people in some 100 countries and owns 400 brands like Knorr, Lipton, Slim.fast, Axe, Dove, Omo, etc.

As Facilitators, Mostert and her 3 colleagues of the Innovation Process Facilitation Unit, assisted Innovation Project Teams world-wide "To accelerate the Innovation Process in order to reach faster and bolder innovations". She facilitated in over 650 sessions varying from Creative Problem Solving sessions, to Consumer Insight sessions, Strategy sessions, Project Planning workshops and Team Building events (o.a. Belbin) and she delivered training on Creativity and Project Management. She specialises in Creativity and has several publications on this topic.

As from 2010 Nel Mostert runs her own Consultancy called MCCIM – Mostert Consultancy for Creativity and Innovation Management. This article is based on her work with Unilever.

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Introduction

Igniting creativity in organisations is a big challenge. How do you get people to generate big & bold new ideas? What or who should be influenced? This article gives different levels where an organisation can start influencing creativity. But how do you know that the influencing actions have resulted in progress? The only way to find out is to measure at the start and after the intervention.

This article gives eight levels in the organisation where measurements can be taken.

Measuring creativity in an organisation can take place at the following levels:
1. Measuring creativity of the organisation
2. Measuring Idea Management
3. Measuring results of Problem Solving sessions
4. Measuring creativity in teams
5. Measuring creativity of individuals
6. Measuring creativity of ideas
7. Measuring the number of available sources of ideas
8. Measuring the level of emotions

This article does not promise to be complete in the overview of where to measure and look for creativity; it is merely intended to help find the answer to the questions "What do we mean with creativity in an organisation" and "How to improve creativity in organisations".

Also it could lead to a new system where Measurement Domains are allocated to research.
Just like you have puzzles meant for 'Children between 6-12 years', this system could say: This measurements is meant for 'Measuring creativity in teams'.

What's New & Creative about this article?

This paper brings a **new** light on the topic of measuring creativity and has two objectives:

1. to start the discussion about at which levels can we look for creativity in an organisation (it does not aim to deliver answers).
2. to start the discussion on how to identify ways to measure creativity

The way of looking at this topic is **creative** because
A) identifying different levels of measuring creativity in an organisation has never been done before and
B) there are 9 questions that can be answered in prior to reading this article, with the aim to start thinking about and start realizing that there are different levels where creativity can be measured. Organisations who are interested in measuring creativity can use this paper (and the questions) as a starting point.
C) It makes use of 9 years of experience as creativity facilitator and of several theses that were generated by students of Dutch Universities of work done within Unilever on the topic of creativity

9 trigger questions to start with

Here are 9 questions that you can fill in with the aim to start thinking about and start realizing that there are different levels where creativity can be measured. The answers can be found after Question 9.

Question 1.

You organise three separate workshops. Each workshop has different participants. The topic of the three workshops is identical: to generate ideas for "How can we have consumers eat more of product X". What is your expectation?
 A)   The three workshops will have less than 20% ideas in common
 B)   The three workshops will have approx. 50% ideas in common
 C)   The three workshops will have more than 80% ideas in common

Question 2.

You organise a workshop with the aim to have a workable solution as soon as possible (within 2 years). What will you do?
 A)   Organise it with as much of a diversity of participants as possible; a few own team members, other expert participants and non-expert participants
 B)   Organise it with a few own team members and other expert participants
 C)   Organise it with only your own team members

Question 3.

There is this problem that needs creativity to get solved. What is the best way to find some great ideas:
 A)   Organize a big brainstorm session with as many people as possible
 B)   Sit together with approx. 4 people and discuss the problem
 C)   Ask individuals of whom you think might have a different way of looking at your problem, to generate ideas and share them to you. You might give them input as stimulus now and them.

Question 4.

You are organizing a problem solving session. Prior to the session you hesitate to send the participants information about the topic because you know that might influence their 'objectivity' and 'open mind' towards creating solutions. What do you do?
 A)   Send no information at all, but confront the participants with the topic only once they are in the session
 B)   Send some information, but just enough to make the participants aware of the headlines of the session
 C)   Send as much information as you can find about the problem

Question 5.

In the past 4 years you have organised a number of problem solving sessions. If you look back after two years, how many of these sessions do you expect will have resulted into an innovation that can be tracked down in a product that is on the market?
   A)   Approx. 20%
   B)   Approx. 50%
   C)   Approx. 80%

Question 6.

An employee in your organisation has a fantastic idea. What do you think is his/her most preferred tool that is used to share this idea with the organisation?
   A)   Tell the boss because he will help you to build the idea
   B)   Type the idea as soon as possible into the Idea Management Tool where all ideas are stored and regularly judged by the Management
   C)   Apply for a possibility to set up an own venture

Question 7.

Some problem solving sessions result in a solution to the problem. Some don't. What do you think is the main reason why some great ideas just do not make to the market?
   A)   Insufficient support of stakeholders
   B)   Lack of time to work out the ideas
   C)   Technical barriers that make it impossible to realise the idea

Question 8.
Suppose you ask your staff to give their opinion about the influence of the following five aspects on a creative culture in their organisation.
1) Attitude; their own attitude towards creativity
2) Behaviour; how creativity is stimulated in the team
3) Skills; the ability of employees to use creativity techniques
4) Structure; the procedures within the company that make ideas flow
5) Environment; the culture in the company that stimulates creativity

How will they rank them, from most positive to less positive?
   A)   1,3,2,5,4
   B)   5,1,3,2,4
   C)   1,2,5,4,3

Question 9.

What do you think has a large impact on both the atmosphere in a problem solving session and the number of ideas that will be generated?
   A)   A feeling of trust among the participants
   B)   A diversity of participants in the session
   C)   An experienced Creativity Facilitator leading the session

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Answers:
1 = A, 2 = C, 3 = C, 4 = B, 5 = A, 6 = A, 7 = A, 8 = C, 9 = A.

A further explanation on the answers of these questions is part of this article.

So, what to measure?

Now that you have answered the questions, you may realise that there are many ways to measure creativity. The key question is: what to measure?

Trying to find creativity is like trying to define life.

This article gives ways of measuring the creativity in an organisation. But, a big warning should be expressed here because of the following. Measuring creativity is like trying to find out where life is in the body. If you take the body apart piece by piece, the head, the legs, the heart, the lungs, the blood, the vessels, you end up with molecules which on their own do not make 'life'; somewhere during your investigation you lost track of it. When trying to measure creativity, you will find that you can measure all kind of things except for the essence of creativity, because that essence is not one specific detail, but the combinations of many different aspects.

Figure 1: Trying to find creativity

Creativity is a complex set of parameters mutually influencing each other. Therefore it might be necessary to use a complex set of measurements. Many students have written their thesis on research done on creativity in organisations measuring all kind of things and many consultants state to have the solution to improving creativity in your organisation. It is time to define the key measures and this article aims to make a first careful step towards identifying what could be the answer.

What are we looking for; what is creativity?

To measure creativity, the first thing to do is to define what we mean with creativity.

Creativity usually is described as something new, unusual, original and different. Creativity is used only in cases where there is a problem that cannot be solved in an easy (1+1=2) way, but where the problem needs a creative idea to solve it. But an idea alone is not enough; the idea generator needs to take action with a lot of passion to overcome obstacles and risks to really make it happen.

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And then there is also a difference between creativity and innovation. In organisations creativity is often described as the 'fuzzy front end' whereas innovation is the area where ideas are turned into projects with people, budget and resources to make it happen. Creativity is the pre-innovation phase where there is just the brain that is working and where freedom is the major indicator. Innovation is the phase in which ideas are turned into new products, machines and/or services and where money and time start to be the major indicators.

There are many definitions of creativity. Here is a selection:
The **Van Dale Dictionary** says creativity is: 1) the Ability to reproduce [biologically], 2) a Measure of someone's creative power.

Gaspersz (Professor at the Nijenrode University in the Netherlands) says that creativity is the quality of individuals or groups of individuzals that leads to *new* expressions, *new* ways of seeing and *new* ideas.

Koestler (psychologist) describes creativity as *bisociation*: the moment at which one has a *sudden insight* into a problem-solving connection between two references that were not linked before.

Latour (science anthropologist) describes creativity as *associologica*: the ability of scientists to transfer the current and known order by creating *new surprising links*.

These definitions guide us to the areas where we can measure creativity.

Eight levels of measuring creativity

The methods described in this article describe measurements of creativity at eight levels in an organisation.
1. Measuring creativity of the organisation
2. Measuring Idea Management
3. Measuring results of Problem Solving sessions
4. Measuring creativity in teams
5. Measuring creativity of individuals
6. Measuring creativity of ideas
7. Measuring the number of available sources of ideas
8. Measuring the level of emotions

Why these eight levels? The reason is that they follow a flow starting from the individual human emotions of fear for dangerous situations; going into sources where the individual finds information he/she needs to generate creative ideas to solve the problems. If individuals can be creative, how about the creativity of teams, and what happens if you put people together in a Problem Solving session; what will the session deliver? And one step further; what happens with the output of ideas when they are put in an Idea Management system and how does the entire organisation responds to creativity? The flow might as well be vice versa, starting with the organisation.

These eight levels do not pretend to be complete, but are aimed to open up the discussion of where creativity in an organisation finds its origin and if we have found its origin, can we measure it? And if we can measure it, how can we improve it.

1. Measuring creativity of the organisation

Many organisations use Employee Surveys on a yearly basis to identify how the employees feel about the organisation in general and their work and team in particular. The surveys may also reveal information about the creativity of the organisation. Also more dedicated questionnaires are on the market and many consultants can help to identify the creative abilities of your organisation, each using their own specific measuring models.

For Unilever, Frijling & Mostert designed a Creativity Climate Questionnaire (CCQ) comprising of 83 questions on creativity. With a total number of respondents of N=564 (most of them being European Unilever R&D people), the results reveal the perceived positive and negative aspects of creativity in the organisation at 5 levels: Attitude, Behaviour, Skills, Structures and Environment. This CCQ is an adaptation of the copyright work of a similar questionnaire used by ?What *If!*.

Figure 2: Creativity Awareness Model (copyright N. Mostert)

The CCQ is used if teams want to learn more about creativity in general and more specific the way in which the team perceives creativity in their working environment. After completing the CCQ, the team scores for example "Continue behaviour" for the aspects Attitude & Skills, but "Action desired" for Behaviour, Structures and Environment. A high score for Attitude combined with a lower score for Behaviour could for example mean that the people believe in their own creativity, but the team behaviour does not support creative ideas. Looking further into the details of the scores of the participants, the facilitator might find that the highest scores, for example, are given to questions like "I listen to other people's ideas", "There are people in my team that I consider creative", and "My company considers creativity an important aspect". The lowest scores are, for example, given for "During meetings my team regularly uses creativity techniques" and "I am allowed to take risks". These scores give information for the Management to start the discussion with the team on creativity and to identify where improvements are necessary and which actions should be taken to achieve a more creative culture.

The N = 564 respondents who used the questionnaire so far overall score their own Attitude as the most positive aspect of the creative culture in the organisation, followed by the team Behaviour, then the organisational Environment, then the Structures in the organisation and finally the knowledge of creativity Skills (see Question 8). This implies that the respondents see themselves as the key force to creativity and they believe teamwork is also important to be able to be creative. The organisation's environment and structures should back-up this effort and finally some knowledge of creativity techniques should be present but this seems not to be a vital element for the respondents.

2. Measuring Idea Management

Idea Management system, varying from sophisticated software programmes to paper idea boxes, are set up by companies to capture ideas of employees, to judge them and to derive new innovative product or service ideas from the system.

The topics that can be measured with respect to Idea Management are for example:

- Do employees use the idea management system?
- How many ideas per employee/per year are added to the system?
- How many ideas are executed?
- How many ideas are still in the system?
- Frequency of evaluation of the ideas by Management
- NPS of products of which the ideas originated from the system
- Savings generated from creative ideas
- Awards handed out to idea generators

Idea Management systems could be at the heart of the organisation making sure that the pipeline for future products is filled. Or are we over emphasizing the value of these type of systems? Let's take a closer look at the first question: "Do employees use the idea management system?". A survey on Idea Management within Unilever R&D Vlaardingen, resulted in an overview of which type of idea management systems are used by the employees. The surprising outcome is the unexpected key role of management and colleagues in the process of Idea Management. It turned out that of employees who have an idea, 31% would tell their manager and 28% would tell their colleagues (see Question 6). Only 8% would use the official Idea Management system. Obviously the managers in the organisation are the best Idea Management system there is. But, then the question is: "Are they aware of this role and how do they manage that?". And what about the ideas that are discussed with colleagues, but do not surface to the management level; how to capture these?

Research into the other Idea Management questions mentioned, might also lead to keys for the management to start the discussion on how to manage creativity.

3. Measuring results of Problem Solving sessions

Creative Problem Solving sessions are a well-know tool to stimulate the creativity and idea generation to solve problems. A lot of hours are spent in meeting rooms or creative locations with teams specially designed to think about a specific topic.

Also within Unilever a lot of Innovation Teams make use of this tool. One could ask; what do these sessions deliver; is the time spent worth while? In the years 2000-2003 Mostert evaluated 87 creativity sessions in two ways: 1) short term focus: an evaluation form handed over to participants (N = 540) at the end of a creativity session and 2) long term focus: a questionnaire sent to problem owners (N = 75) after one and/or two years. Three results are reported here: 1) the Reasons why the sessions were organised, 2) the Results of the sessions and 3) the Risks that the team encounters barriers after the session while trying to implement the ideas.

1) The Reasons why sessions were organised

The Reasons to organise the sessions were in 42% of the 87 sessions to solve a technical (R&D) problem or at the start of the project to generate ideas for new products (38%), sometimes marketing plans were brainstormed (14%) or the session was organised for another reasons (6%).

2) The Results of the sessions

The Results were that 90% of such sessions result in useful ideas for developing new products (30%) and project proposals (60%). For Unilever R&D Vlaardingen 16% of such sessions effectively result in innovations that can be tracked down in a product on the market (see Question 5). The sessions also generate a noticeable improved creative climate within the team.

3) Risks encountered

The Risks are the barriers why some great ideas do not make it to the market: and consist of, in order of decreasing importance: insufficient of support of stakeholders (see Question 7), insufficient budget, quality of the ideas, scope change, technical difficulties and lack of time.

Figure 3: Insufficient of support of stakeholders

These Reasons, Results and Risks are excellent measures that provide an opening of why and when creativity can be used in the organisation, what are the benefits of creativity and what should be improved with respect to the risks of barriers. So, also measurements at this level of Problem Solving sessions can deliver valuable information for management to start improving the creative culture.

4. Measuring creativity in teams

Two topics are discussed here that have to do with the influence of diversity and group effectiveness on the output of creative teamwork: the effect of diversity and of group work.

Does diversity create creativity?

How creative are teams? What is the effect of a multidisciplinary team, or of a multi-cultural team? Creativity in teams is expected to be greater when there is diversity in expertise, nationality, sex, character, experience, etc. However, diversity is not always a measure of creativity. In fact it can hinder creativity because of a lack of trust and confidence between the participants. In Unilever R&D it has been seen that project team members solved their problems more often when they did not include "external" members (like consumers or suppliers) in the CPS team (see Question 2).

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There might be several reasons for this. Problem solving sessions create chaos, and this chaos is turned into order more easily inside the own project team. It is also felt that true creative ideas are generated and recognized quicker in a team of experts who are able to judge the value and potential of the ideas. Furthermore, ideas not originated in the own team are often discarded because of the Not Invented Here syndrome.
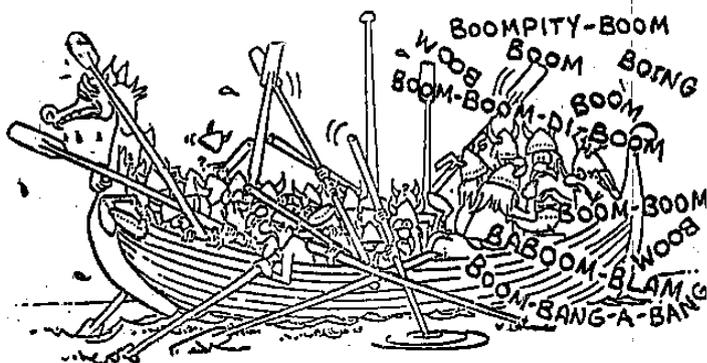

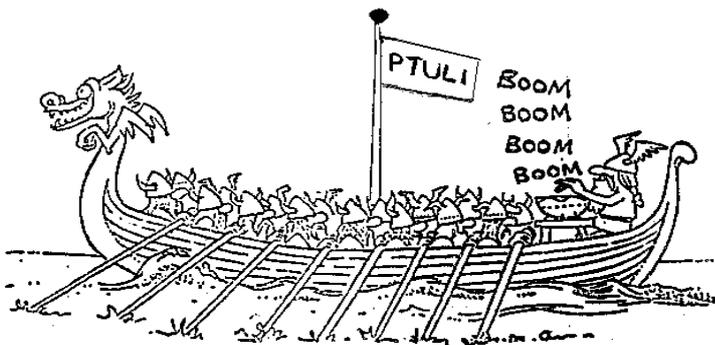Figure 4: creativity in a diverse team

Figure 5: creativity in a homogenous team

Research on this topic was presented by Mostert at the Innovation with Diversity 05 Conference, Denmark 2005 (organised by Innoversity & the Innovation Leadership Forum) and the EACI 9th European Conference on Creativity and Innovation, Poland 2005. For more information on the topic of Diversity and Creativity, see the literature overview.

Does a group create creativity?

"The illusion of group effectivity" means that it appears to be an illusion that groups are more productive in idea generation as individuals in isolation. The thesis of Nijstad (University of Utrecht) on "How the group affects the mind" shows that idea generation is best done individually (see Question 3). Nevertheless, the favourable perceptions of performance and high task enjoyment in brainstorming groups appear to be reason enough for not giving up group brainstorming.

These two research topics show that the added value of working with a diverse team or even with a team when creating ideas might not be as large as we thought, and might lead to a new concept of Problem Solving where participants are much more triggered to work on their own and seek for impulses and triggers with people they fully trust. In the Chapter on "Measuring the level of emotions" more will be explained about the importance of trust.

5. Measuring creativity of individuals

Individual creativity is certainly important as a measurement. A personality test like "Belbin Team Role Management" tells us that we need at least one "Plant" (a Plant is the creative role within a team) and complementary characters in a team as you need people who have different ways of looking at your problem. Management should know who are the 'creatives' in the organisation (Do you know?) and they should also know how to exploit that creativity to avoid these people from job-hopping because their flood of ideas is ignored too often.

Unfortunately not many people are willing to admit to say: "Yes, I am creative". We do know that everybody is creative in their own way, although sometimes you need to help them a little bit. It is advisable to prepare the minds of the participants in order to improve the quality of the output of a Creative Problem Solving sessions. This is proven in two researches. One is done done by Mostert which showed that a prepared mind gives more focussed ideas. In a sequence of three CPS sessions there were three different teams working on exactly the same topic "How to have consumers eat more of product X". One team received more information like pre-reading material, presentations and a discussion, on product X than the other two teams. That resulted in a considerably higher percentage of ideas specifically focussed on product X (68%) than the two other teams (26% and 19%).

Figure 6: Management should know
who are the creative persons in
the organisation (Source: Google)

Another research done by De Winter on "Sustainable idea generation where Unilever wants to invent a more sustainable detergent powder" involved two teams. One team had to think of problems without any knowledge about Sustainability, the other team was give an lecture on Sustainability (People, Planet, Profit) with a discussion with experts afterwards. When generating ideas it showed that there is a positive effect of prior information on Sustainability given to participants on the quality of sustainable ideas that are generated.

These two examples show that it is possible to influence (and measure) the quality of ideas generated by the participants of a CPS session. If participants are sent information about the topic prior to the session, they will generate more valuable ideas (see Question 4). However, a big warning here; if you send the participants too much information, they become the problem owner themselves. There is a delicate line between 'just enough' and 'too much' information. A good CPS Facilitator knows how to handle this.

From this chapter we can conclude that measuring the creativity of your employees and preparing their minds for CPS sessions, does pay off.

6. Measuring creativity of ideas

Yet another level of measuring creativity, is at the level of ideas. Measuring the creativity of ideas is however not straightforward. What do we mean with the quality of ideas in the organisation?

One way to measure this is to see how many ideas from the Idea Management system really make it into a product on the market. This is already discussed in Chapter 3 of this article, see: 2) The Results of the sessions.

A second way is to see how many unique ideas are generated in CPS sessions. Mostert organised three creativity sessions on the same topic: "How to have consumers eat more product X" to find out what is the effect of having different groups generate ideas on the same topic with respect to quantity and quality of ideas. What do you expect will be the duplication/triplication between the ideas of the three groups, how many ideas will be the same? (Now make your own guess ...). Mostert her guess was between 40-60%. It was a surprise to find that out of the total 767 ideas generated in the three groups, only 18% of the ideas were the same between the groups, of which only 1% (which are 9 (!) ideas) were the same in all three groups (see Question 1). This means that different groups do come up with different ideas, so it is worthwhile to organize plural sessions with different groups if you want to achieve a large variety of ideas.

Figure 7: Duplication of ideas in
a CPS session
(Source: Google)

Figure 8: overview of unique and
duplicate ideas within & between
ideas of 3 CPS sessions.

Next to the 18% duplication between the teams (of which 8% were unique (but copied) ideas), each of the three teams had 40% duplication within the team (so people started to copy ideas that were already generated within the team). The result of the three sessions is that there are 42% + 8% =50% unique ideas. Bearing in mind that 'You have to kiss a lot of frogs to find the Prince', a large amount of ideas will help you to find an answer.

A third way is to measure the quality of ideas. Measuring the quantity of ideas is easy, but how about the quality? Is there a measurement for quality of ideas?
The quality of ideas is a matter of knowing on the basis of what are you going to select your choice of 'best' ideas. Rietzschel (University of Utrecht) measures the quality of ideas on three axes: "originality" and "feasibility" and "desirability", but has found that in the end people tend to select the most "practical" ideas.

It is advisable to define selection criteria prior to a creativity session. For example in the earlier mentioned example in Chapter 5 the criteria for the Sustainability session were related to People, Planet & Profit. At Unilever, criteria usually include: patentability, time to market, technical challenge (which will prevent me-too products), consumer benefit or brand support. Next to these criteria, the 'gutfeel' and 'practical' will define the decision. The quality definition of ideas should always be related to the strategy of the organisation. However, sticking too much to the pre-set criteria might give the danger that an organisation will always keep doing what they feel is best or what is in their line of 'practical' work, and therefore will never go out-of-the-box and excel in radical innovation.

Sometimes all criteria need to go overboard and a new game with new rules/criteria has to be brought in. At Unilever R&D (NL) we sometimes need a new game after large-scale CPS sessions that not only resulted in ideas that had a good fit with the pre-set criteria, but also in ideas that did not fit the criteria at all. Those off-the-record ideas were nevertheless considered to be very creative and they were given the opportunity to be transferred into drawings or prototypes. These were given a fair chance with several new stakeholders. Drawings and prototypes are such marvellous things; they are often the key to the heart of the decision makers. Chapter 8 of this article will deal in more detail about the consequences of such a new game that is all about Fear, Trust and Passion.

This chapter shows that it is possible to measure the quantity and quality of ideas, but this does mean that the quality needs to be well defined prior to the session.

7. Measuring the number of available sources of ideas

Creative ideas do not appear out of the blue. People need information, input, pictures, words, smells to come up with new ideas. Therefore it is necessary that a problem owner and his team has access to as many sources as possible, which will enlarge the probability that one piece of information leads to the Aha!-moment. The sources can be:

Colleagues	Meetings	Internet
Conferences	Idea boxes	Competitors
Open Innovation	New employees	Trainees/students
Knowledge management	Customers	Academic partners
Suppliers	Formal networks	Informal networks
Consumers	Trends	Special interest study

Figure 9: Sources of creativity

The major part of this list is created during an EIRMA meeting April 2007 at Athens, and can be extended to fit your company.

Another source of ideas is all the creativity tools that are available.
In fact, we may start to wonder if creativity is creative at all, since so many pre-defined ways of inventing products are described already that make use of knowledge on NPD. Mostert almost dares to say that "Creativity is not creative; it's just filling in the dots".

Using for example the TRIZ and SIT methodologies means using established principles and existing knowledge for generating new products:

   a. TRIZ gives 40 principles like: segmentation, local quality, merging, nested doll, vibration. Next to that TRIZ has identified an invention order for products. For example the way we developed our ways of writing: products turn from solid (rock), to particles (chalk), to gel/fluid (ink), to mechanical (typewriter), to electronics (computer) to fields (voice recognition).

   b. SIT gives 5 principles: Subtraction, Multiplication, Task unification, Division, Attribute Dependency.

A new creativity methodology that is being set up by Mostert at this moment, involves innovating with Marketing P's. Having run over 140 CPS sessions of which many were on FMCG New Product Development, she has identified over 400 ideas that repeatedly were generated by the participants of the CPS sessions. These ideas are applicable to almost any NPD. Mostert has clustered them in ideas for Packaging, Price, Promotion, Product, Place and Proposition. When the new methodology is ready, it can be used by CPS teams as triggers for their own NPD sessions.

So, "How creative is creativity"? It looks like the participants of a CPS session just have to follow the rules of the chosen methodology, use the pick list of ideas and apply the idea directly to their (new) product.

The conclusion of this chapter is that having access to good, triggering information and knowing how to use the creativity techniques, gives the employees and participants of CPS session a head start in generating new and innovative ideas.

8. Measuring the level of emotions

Creativity and emotions are very much linked. The emotions Fear and Trust and Passion are as much part of creativity as is the Happiness of the idea generator when having a great new idea. Why is Fear is part of such a nice thing as creativity? The next chapters will explain why people are tossed around between Fear and Trust and Fear and Passion.

FEAR

Human beings are always looking for ways how to improve their lives based on fear of losing their comfortable way of living (or sometimes to really survive). "Fear triggers creativity and the brain is constantly sending warning signals", according to Jansen (Ref. NL Newspaper Algemeen Dagblad; 24 March 2007)
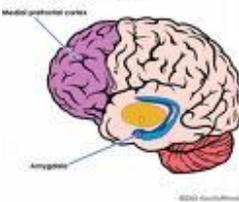
Psychologist G. Jansen:

"The best motivation for behaviour is fear. The brain is constantly sending warning signals. Ignoring a red light, might lead to an accident. Standing still before a green light, only might make someone else angry. Negative things weigh heavier than positive. The majority of our thoughts are about dangers and difficulties, even with happy people."

Figure 10: Fear extinction and the brain (source: Google)

Is it possible to measure the fear in your organisation as to what extend the employees realize that the market, the competition, the prices, and many other factors influence their work, their income and their life? How committed are your people to make the necessary changes (reorganisations), to come up with ideas (innovations) or to work as effectively, efficiently and environment friendly (Carbon Footprint) as possible?

TRUST

Emotions like confidence, feeling comfortable, happiness, trust, share, safe, common ground, respect and connection are all important in connection to creativity for two reasons.

1) Creativity is all about taking risks.
You only dare to take risks if you know that you can trust the people you are working with will support you and back you up. Ideas sometimes are like a baby, and you only want to give birth to them in a safe environment.

2) Creativity is all about trust.
Creativity requires full openness towards each other to accept each other's ideas. If there is openness and trust between the participants of the session, the most daring, new and creative ideas can be expressed and the group will produce a flow of these ideas. Providing space and freedom to share ideas in an atmosphere of trust is the best ingredient for creativity (see Question 9).

The Dutch ING Bank did research among 1700 small companies and found "10 successful tips for good enterprising":

ING Bank Tip 9: "Have a drink together.

Not because of the alcohol, but of the space and freedom where employees dare to share ideas.
People need to feel **trusted**.
You do that by offering informal communication,
for example a drink or a dinner".

Figure 11: ING Bank tip 9
Have a drink together
(Source: Google)

Research done in Unilever by Kijkuit also stresses the importance of good Social Networks. He investigated the social networks in the R&D and found that the informal structures are at the basis of good innovation. One of his key conclusions is "Strong ties between people from different units are crucial for the development of ideas in the Front End of New Product Development processes".

FEAR

If you think you are safe after you have had a great idea and you have expressed it to your management or colleagues, you can be totally wrong. Picasso already knew this, he said: "creativity is destruction".

	Picasso:
	"Creativity is destruction. The destruction of old insights, views, thoughts or feelings in order to achieve something new"

Figure 12: Picasso painting
Source: Google

After the idea has been generated and explained to management, colleagues or others, they will have fear of the consequences of this new idea on their life, their work and their well being. Not until the idea has proven to be good, the idea generator will face a lot of challenge to get his idea sold, approved and accepted. This will especially be the case in a risk-averse organisation.

PASSION

And that is where the passion comes in. Will the idea generator have enough passion to give the idea the necessary energy and persistence to really drive it forward? Will the idea generator have enough power to resist all negative responses like: "It will never work", "I do not want to change things, why should I?", "This does not fit with our strategy". Some inventors are energized by these type of reactions and will run even harder to get the idea implemented, even at the risk of loosing their own comfortable job and starting their own business. Organisations must realize that the future is already invented; it just takes some time for innovative products to get to the market. Some products were generated years ago, but needed the right time and place to go to market. The management should protect the creative employees, because their today's ideas are the future of the company.

So, maybe it is a good idea to check the results from your organisation's yearly employee satisfaction survey for question like:
- for Fear: "I know what our competitors are doing",
- for Trust: "In this organisation we are allowed to take risks" and
- for Fear: "I am positive about my job stability"
- for Passion: "I will go the extra mile to get my job done"

Measuring the fear, trust, fear and passion in the organisation will reveal how creative a company really is. So, in the end it does not come down to hard figures, but to the soft topics as emotional states of mind of your employees in your organisation.

Conclusion

This article aims to give an insight in different ways to look at creativity in an organisation and how creativity can be measured. This might help to give management an indication at which levels creativity can be measured and influenced, so that they are able to improve the creativity and innovative results of the organisation.

Eight levels are defined and examples of measurements are given for:

1. Measuring creativity of the organisation
2. Measuring Idea Management
3. Measuring results of Problem Solving sessions
4. Measuring creativity in teams
5. Measuring creativity of individuals
6. Measuring creativity of ideas
7. Measuring the number of available sources of ideas
8. Measuring the level of emotions

The conclusion is that creativity is a complex set of parameters mutually influencing each other. Therefore it is necessary to use a complex set of measurements. A final answer on which key measures are necessary is not delivered in this article, as the objective of this article is to start a discussion between experts in the field of Creativity & Innovation on this topic and maybe realise a new system where Measurement Domains are allocated to creativity research.

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