



CONNATURAL MANAGEMENT APPROACH TO PREPARATION AND DEVELOPMENT OF INDIVIDUALS IN THE BUSINESS ENVIRONMENT

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Abstract. Article develops modern trends in management, using knowledge of cognitive and behavioural sciences. It presents the concept of subtle skills and a connatural management approach. It presents the results of research on the relationship between stress, mental condition and the level of critical thinking, problem solving and decision making. To achieve these goals we have used results of a psycho-diagnostic research which all participants of managerial training X-tream Management were subjected to.

Keywords: connatural management, subtle skills, mental condition, critical thinking, self-development, decision making.

JEL Classification: L21, L25, M21.

Introduction

The aim of this article is to introduce the concept of Connatural Management Approach (CNM) and its potential for quality development of an individual in relation to management of organizations and processes as well as management of people and human systems. This approach has been developed at Newton College in Brno, where the need has arisen to search for other ways of skills development of professionals who are expected to effectively realize their potential and keep developing under the dynamically changing conditions of the market environment.

Current approaches to description of human skills of working within organizational environment vary and take different views into account. The overwhelming majority, however, only distinguishes between hard and soft skills. These approaches describe what organizational environment requires from humans, they emphasize performance or decision-making processes, or search for an optimal environment for the identified competencies or skills of an individual to be applied (for example Armstrong 2007; Šuleř 2008; Koubek 2008; Folwarczná 2010 and others). In

terms of training professionals for the business environment, it becomes clear that in addition to these two traditional factors of development, it is useful to focus on what we started to call subtle skills. By subtle skills we understand fine understanding of situations or context and mental acuteness – qualities not to be noticed or analysed immediately, which however created “added” value of an individual and their orientation and functioning within the particular situational context.

1. Theoretical background

The present CNM model focuses on methods of developing these fine skills and natural talents of each individual, which enable them to effectively realize their potential in the unceasingly changing world.

The reversible process directed to oneself emphasizing individualism and individuation is a very significant pattern of our thought process. We use the term of individuation in the sense of: “a long-term process in which a man becomes an individual”, (New academic dictionary of loanwords

(Kraus et al. 2007)) that is a different person (in our concept in terms of mind and cognition in particular) from other individuals of the same class and kind. From the perspective of psychological approaches we understand process from the perspective of C. G. Jung's concept of psychology. The term individuation can be understood in the context of autopoiesis as a conscious autopoiesis of a mind and a man, which is the basis of cognitive management concept.

Nordstrom and Ridderstrale (2006) note in the book titled *Karaoke Capitalism: Daring to Be Different in a Copycat World* that when one wants to "move forward", they must follow their individual, internal path, path of imagination and authenticity. Imitating, following the rules, regulations and algorithms, etc. create a sense of security. Such behaviour is, however, predictable and can be expected.

We therefore consider the concept of Senge (2007) inspiring. In it, he formulates five basic areas, or disciplines, which he applies to any human system in terms of the ability to survive and develop in a changing environment. By disciplines he means personal mastery (professionalism), mental models (fluctuant and critical thinking), vision sharing (communication – dialogue), team learning, and the fifth, final discipline, systemic thinking (the ability to view systems as wholes). Personal mastery is based on competence and professional skills, but it also presents further development potential, i.e. lifelong discipline. People who have reached personal mastery are aware of their own "ignorance, incapacities and areas they need to work on. They are very self-confident at the same time". The awareness of one's own incompetence on one hand, and self-confidence on the other might seem a paradox, but it is actually a force that is permanently driving one to improve. This paradox is also what makes one different from an expert as described by Taleb (2011). Similar questions are also addressed by Pink (2011: 90) who points out three laws of mastery in the context of motivation. Even though he draws from results of behavioural research, he emphasizes autonomy and connaturality. "The point is not keeping our natural predisposition hidden, but on the very contrary – revealing it" (Pink 2008: 67).

Connatural Management (CNM) can be simply defined as being natural and spontaneous. The term as such covers two aspects:

1. Management by nature, meaning managing connatural qualities of people and human systems;
2. Management by nature, meaning cultivating the ability to distinguish between the natural and the artificial as well as respecting natural conditions and effects of situations, environments and human and organizational potential.

One of the aspects of CNM is individual skills development for an effective action in the cognitive domain. The cognitive domain applies to thinking as well as information

and experience processing. Knowledge is "created" in this domain and knowledge eventually leads to any decision. Decision itself is, however, only one stage of the process. A decision has the form of information and knowledge which make sense within a particular context. As a behavioural pattern decision actually co-creates reality. This is based on coherence and correspondence, that is on unity of references and integrity of context. A decision can be rational, sensible, wise or unwise.

The terms rationality, sensibility, and wisdom are considered as follows:

1. We understand the ability to logically consider information and knowledge in the framework of a given cognitive model as rationality.
2. We understand two main qualities of a thinking process in particular, that is volatility within the cognitive continuum as per Hammond (in Kostroň 1997: 47–66), and the ability of system thinking in the context of thoughts of Senge (2007: 24) as reasonableness. It is the ability to act mentally in two directions or modes. This is mainly based on the ability to differentiate, i.e. to separate, distinguish, categorize, and work with particularities or components. The second mode is geared towards relationships, relations, similarity, reciprocity, context, and the whole. These are the aspects, for which the traditional critical thinking reduction to formal logic operations, seems to be insufficient.
3. We understand the aspect of personal mastery according to Senge (2007) as wisdom and we suggest the following thought of Neubauer as a relevant illustration of the term: "*Just by listening to the sound of the word – wisdom – how natural (although certainly not common), we hear the same; experienced reasonableness and understanding, truthfulness indifferent to disputes, justice of conciliation, not judging but goodness, in which the opposites meet*". More and precisely in Neubauer (2002: 135–136).

It is fundamental for a decision, how it is understood, how it is grasped and subsequently implemented in the physical domain, so an important element is the way the decision is shared as knowledge (information) and applied to a specific context. Various models and metaphors make understanding cognitive processes, thinking, decision-making and knowledge inception and sharing accessible. One of the current models is the model using cybernetics language. Hardware and software are good examples. The background of the so-called soft skills or skills necessary for cooperation with people, knowledge sharing, and human systems managing suggests itself. This mechanistic model surely allows for some categorization of reality and its understanding in the current post-modern paradigm. In the background of this model we can sense the traditional

differentiation between the tangible and the intangible, body and soul or the physical and the metaphysical. There are however other models, the principles of which may currently be applied. A Taoist concept presented not only by Lao-Ć (Zhuang 2006), but mainly by Sun-Ć (Zhuang 2006) and Zhuang Zhou (2006) is similar in terms of its application potential.

The mechanistic hard/soft model, aptly adopted from cybernetics, is obviously not sufficient to describe all the aspects of developing a manager. There is a lot of specific individual skills and knowledge necessary to react flexibly within a particular context to be taken into account. Neubauer, enriching the scheme to the concept of wetware, when considering the subjectivity and autonomy in conjunction with mechanistic conception. At that time, states: “The real ‘cybernetics’ they know what their parts represent, it must first be understood in its entirety and adopt in spirit, to stand in the middle of the inwardness of the problem and be a master in the opinion of this unifying intuition that cannot be software develop and debug through mindless trial-and-error, structural or mechanistic moving ‘blocks’... self-managing (self-regulation) of living Entities lies in what we Called with Hofstadter ‘wetware.’ The Boundary Between the program, the installation device and the output is smooth and the Proportion of the two sides is self-regulated too” (Neubauer 2002: 92).

Given the assumption that organizations are human systems, and as such, because they consist of human beings, they are alive in a way too, the above mentioned way of thinking appears to be inspiring to the extent that it allows us to create a model which may contribute to an effective development of human skills and human systems. Human knowledge development and the unceasingly changing social and market environment require such a model more and more urgently. The hard/soft model has its advantages and disadvantages. One of the advantages is that it creates “people” for the existing systems and familiar environments, usually with the characteristics typical for the environment of the second wave as per A. Toffler. One of the disadvantages is that it does not allow any significant quality development of systems and environments of the third wave.

Besides the traditional hard and soft skills, the connatural management approach also presents the so-called subtle skills. These are inherent to every individual; they might even have been genetically encoded. In our environment subtle skills are suppressed by social development of society as well as the “usual” model of management decision making, and it is therefore difficult to apply them. Sensitive perception of feelings and intuition can be the key to managerial success in the present, highly competitive, business environment. Similar thoughts can be found in Hroník (2008), who highlights the need to search for a “solid point

in oneself”, i.e. managerial integrity as a necessary tool of every individual operating within managerial environment.

We consider it more suitable to draw from the theory of Cognitive management (Saliger *et al.* 2010) which is focused not on searching for a solid point but on creating it by thinking and learning.

CNM focuses on qualities which are to a certain extent inherent to all people, therefore also organizational human systems. These qualities are also included in all possible situation contexts in which people can find themselves. In other words, they are inherent to any context, and may apply anywhere and anytime. These are not properties and capacities as described by psychologists, sociologists or structured and categorized by philosophers. They are closely related to what is called tacit or implicit skills; what Dreyfus brothers would call non-rationalized practice; what is related to the flow effect aspects as per Csikszentmihalyi; personal mastery according to Senge or the approach of a master as depicted in a story “Master chef was opening the bull for prince Wenhui” by Zhuang Zhou in the chapter “Principles of growing life” (Zhuang 2006: 87–88).

Within the CNM model we have called these inherent qualities which can influence management and cultivation “subtle skills”. They are based on the natural potential of a man, on the ability to step outside of the usual schemes of knowledge, models of thinking, behaviour and decision-making standards. In this sense CNM focuses on the way of thinking similar to the one described by Zhuang Zhou.

The following scheme presents a three dimensional model of managerial skills and individual skills within them. The basis of the model consists of three dimensions of skills – hard skills: professional and system skills; soft skills: interpersonal skills; and subtle skills: individual skills (fine and implicit).

We perceive as subtle skills the natural abilities of an individual, which are applied to decision making and behaviour in changing situational contexts.

- Mental condition is connected to the cognitive and decision making optimum in various situational contexts and task types.
- Psycho-physical condition relates to the balance and harmony of the inner systems of an individual.
- Critical thinking (krinó – I judge). Critical thinking allows one to distinguish facts and fiction, minimize deformation of information and its meaning caused by stress (e.g. arousal) or emotion (fear, anger) or by the influence of expert cognitive stereotype. Critical thinking in the context of subtle skills does not represent and cannot be confused with analytical thinking or logical judgment. These are included but it cannot be said they are of any major significance or even dominance. Our mental mobility within the cognitive continuum also requires intuition and emotion. For

practical purposes we extract critical thinking out of the usual context of formal logic and rationality methods and we place it in the sphere of reasonability, closer to the concept of wisdom and knowledge. This allows thinking as a process to be applied not only in linear and symmetrical tasks, but also in heuristics, asymmetrical tasks or tasks requiring decision making influenced by uncertainty, permanent change and so on. The connection between critical thinking and decision making is an issue discussed very often. Stríženec (2013: 320) mentions in his overview study that there are methodological approaches for research and application in various fields, including managerial environment. The issue as a whole, however, has not been addressed yet.

Creative thinking is connected for example to skills of an individual or a micro-team to create new knowledge by using available information and knowledge, to transform algorithms or standard operation procedures of task solving process and so on.

Discipline and stability are connected to mind fiction states. Discipline is connected to myself realizing some conscious content, i.e. what I am thinking and how I am thinking. This allows my thinking self to discipline and direct the stream of consciousness by thinking. Stability refers to the ability to avoid extreme, i.e. move within the optimal continuum of critical thinking.

- Distance and concentration relate to the ability of following particular subject matter; pursuing particular intention in the context of vision and situation. The ability to work with a gap, stereotypes, and subject-object reactive status is also relevant to this.
- Respect represents the ability of a fully responsible relationship to oneself, a team, a company, an environment.
- Change, chance and stress represent the ability to consider change a permanent aspect of being, and related effects of parallel processes, accidents, loads – stress and crisis.

To us high quality training of future managers means constant dedication to developing various methods and approaches which we actively apply to the process of preparing and educating them. The value created by this process has three different levels. The first level is the basic level of knowledge. The second level is about skills. The subject (the value) of the highest level is a long-term conscious self-development and cultivation of tacit knowledge and meta-abilities that increase one's competence to operate in various circumstances, i.e. subtle skills.

We consider meta skills to be sets of qualities on the background of subtle, soft and hard skills which are specific to an individual and are also connected to their environment (Fig. 1). Practice and conscious experience help create these. The exact boundaries of this notion are

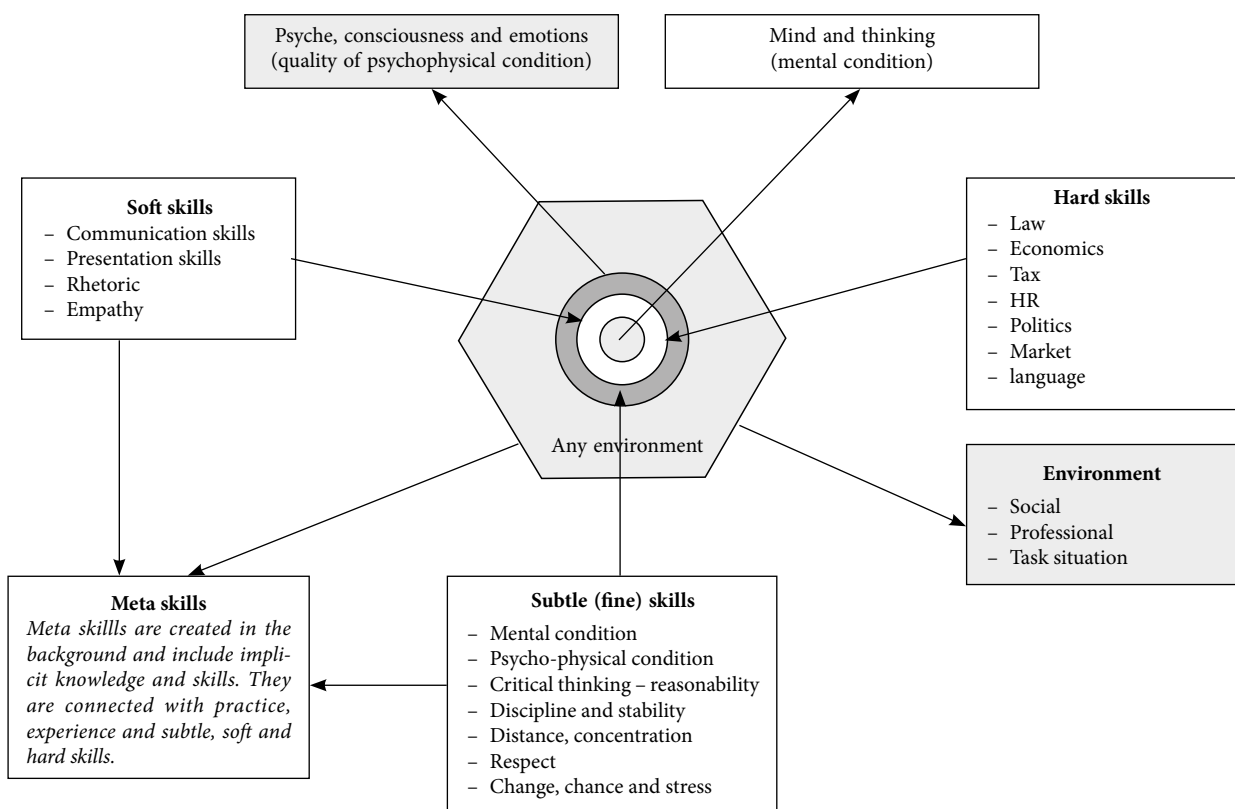


Fig. 1. Three dimensional model of connatural management approach (source: own research)

problematic to be defined. As an aspect of professional mastership quality it can be defined according to A. Mindell as “continual attention and more conscious application of our attitudes in practice” (2009: 12). In managerial practice it seems that by using various techniques, e.g. of effective leading and managing human resources and systems, different managers can significantly influence their results by meta skills which actually define the quality of their performance.

The hard and soft skills development takes place within the first two levels of the education process and subtle skills development is the third way to achieve managerial mastery. Anthropologist Edward Hall states that “people are learning organisms par excellence. Their desire to learn is as strong as sexual desire - but it wakes much earlier and dies much later”. More in Senge (2007: 31). To wake up the desire, this hunger for learning, the urge for self-development and at the same time to offer the environment, approaches, and ways to achieve set goals is the ultimate target of our endeavour.

At Newton College we apply the CNM approach within the framework of special courses and training beyond the credit curriculum. Using our methods, we try to stimulate resources, potentials and simply everything that may lead to changes. True learning is not about absorbing information. It is a process of recreating ourselves.

One of the currently offered products is management training called “X-tream management”. This training combines elements of crisis, project, and cognitive management with a special emphasis on the CNM approach. It focuses on development of three levels, three areas of competence:

- The ability to take care of oneself (self-control – managing stress and related emotions – preventing being a burden to the team / personal professional competence);
- The ability to take care of the immediate environment (partner, the team / professional and team competence);
- The ability to care of a broader reference environment (the company – professional and managerial competence).

The training has elements of a development centre and it is geared towards individual and pro-team skills which are crucial for further development of decision making and reacting skills to manage standard, challenging, extra-ordinary and extreme situations. Methods of intuition development, critical thinking, concentration, relaxation, etc., are used in the training. The training program allows participants to creatively and usefully apply their own experience and knowledge in a specifically modelled environment. Besides the reflexion method, complex diagnostics of mental and psycho-physical condition of each participant is also part of the training.

The significance of this method of diagnostics is based on the fact that it makes it possible to describe particular factors which are connected to the occurrence of subtle skills or even support and strengthen them. One of the areas we focus on is critical thinking and its selected aspects connected to learning, decision making and managerial behaviour. In this context we are trying to verify and develop methods which we apply for the training purposes.

The goal of the research was to find out whether increased complex and specifically modified burden leads to quality and quantity change of critical thinking cognitive performance of the respondents. Another goal was to find out whether there is a connection between the performances of the respondents in the individual tests. To achieve these goals we have used results of a psycho-diagnostic research which all participants of managerial training X-tream Management were subjected to. The research set included 53 respondents, university students aged 20–24 who participated and completed the above mentioned training.

As for psychological diagnostics, the following methods were used – IST-2000-R (Amthauer 2005). We suppose factor of generalization is connected to the topic of critical thinking. It includes the extent and precision of verbal-logic systematic ordering of knowledge. The success in the subtest Generalization is based on a score each respondent gets for performed generalizations. Another method was Decision Making under Time Pressure (Komárková 1993). The test includes tasks of different difficulty which changes within the test. Both these features are linked to the level of ability to perform the same or better cognitively (based on quality and quantity of performance) under a long-term and complex pressure.

Tests of psychological diagnostics were presented to the respondents twice, the first time it was during the pre-diagnostic research, one month before the training itself, the second time it was during the training on the third day after being subjected to a long-term burden. The collected data was processed by IBM SPS Statistics 20.

2. Results

First of all we carried out descriptive analysis of the selected variables. The goal was to find out whether the artificial burden changed the performance of the respondents. Out of the total 53 respondents, 35 performed better in the subtest of Generalization, i.e. 66%. In the Decision Making under Time Pressure test the performance of 25 respondents improved, i.e. 47.2%. The number of students who improved in both tests was 12, i.e. 22.6%.

Table 1 shows the numbers of respondents in four different groups based on their score. 48 respondents (90.57%) improved at least in one test. Only 5 individuals (9.43%) did not improve their performance or scored lower than in the first test.

Table 1. Contingency table: IST GE a DMTP
(source: own research)

No		DMTP		Total
		Yes		
IST GE	No	5	13	18
	Yes	23	12	35
Total		28	25	53

To find out the connection between the performances in the two tests we applied the test of linear independence based on the table above. The connection is estimated by the measure of linear dependence. Most commonly this measure is a correlation coefficient ρ . It is a number of the interval $(-1; 1)$. If the correlation coefficient approximates 1 it means there is a strong linear dependence of the variables. If the correlation coefficient approximates -1 there is a strong linear independence between the variables. The determination ρ^2 is the correlation coefficient square and is in the interval $(0; 1)$. Measures close to 1 mean the model describes the linear dependence well. Measures close to 0 mean, on the other hand, the model is not suitable to describe linear dependence of the variables.

We have proved a statistically significant connection between the performance in the subtest of Generalization and performance quality in the Decision Making under Time Pressure test. This relation was proved by Pearson's chi-square test and was measured as follows: $\chi^2 = 0.009$ as it shown in Table 2. On the significance level of 95% this represents the connection of IST GE and DMTP. Contingent coefficient was used to verify the strength of this connection. This coefficient is in the interval $<0; 1>$. The value of the coefficient is 0.339. This means a slightly below average value of connection. We can therefore conclude that under the given circumstances there is a connection between the performance in the subtest of Generalization and the performance in the DMTP test.

Table 2. Pearson's test of the relationship between IST GE and DMTP (source: own research)

	Value	df	Asymp. sig. (2-sided)	Approx. sig.
Pearson Chi-Square	6.865a	1	.009	
Likelihood ratio	7.030	1	.008	
Linear-by-Linear association	6.735	1	.009	
Contingency coefficient	.339			.009

Notes: a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.49. b. Computed only for a 2×2 table

3. Discussion

As mentioned before we use various methods to develop critical thinking and identify individual parameters. We are interested in the level and development of basic psychic and cognitive functions, the level of fluid and crystalic intelligence, judgment precision, quantity and quality of performance.

If we take the previous knowledge of the test into account, the changes in the performance both $+/+$ and $-/-$ go against the possibility to generalize the influence of this factor in terms of taking the same test for the second time. Other variables, e.g. motivation can be ignored since the participation in the training itself suggests the motivation of the participants to work on their self-development.

For the purposes of our research we used the methods of IST – Generalization subtest and Decision Making under Time Pressure test. The selection of methods was influenced by the context of observing the subtle skills development, critical thinking in particular. We assume factor of generalization influences critical thinking and we also believe that individual tasks of DMTP test are very demanding in terms of critical thinking.

When evaluating the results we consider the number of respondents which was limited by the capacity of the above mentioned training. That is the reason why we are very careful when making any conclusions. By statistic processing of the data we proved the increasing tendency of the test performance of the respondents who experienced the training environment. Nevertheless, there are respondents whose performance was not improved, or was actually worse because of the burden. There are many variables in the process of task solving, e.g. analytical and logical thinking skills, mental and psychic condition as well as individual personal factors, dispositions and tendencies.

Furthermore we proved by statistic processing there is a significant connection between the performance in the subtest of generalization and performance quality in the DMTP test. Generalization factor proves the ability to think, sort out and define everything the features have in common and in at the same time generally valid. The DMTP test quality performance is a two-dimensional characteristic which describes the respondent's performance given by the connection of the total tasks solved (speed) and the number of correct answers. The quality of performance is influenced by attention, differentiation and comparison skills, decision making speed and so on.

The connection between the two performances suggests a possible connection between the generalization skill and the ability to perform well cognitively under time pressure (cognitive uneasiness caused by limited time) and also the increasing difficulty (the last tasks are verbal but require calculation and linguistic skills). This ability is not intelligence based, but influenced by other factors connected

to psychophysical and mental condition of an individual and their ability to create and maintain these conditions.

On the basis of a pilot research which we carried out at the managerial training.

X-tream management we can identify the future direction of our research the results of which will then be implemented into the process of developing the training. We are interested in aspects which influence or support critical thinking, e.g.:

- Critical thinking structure (Watson, Glaser 2000).
- Cognitive variability connected to the ability to modify preferred cognitive model or use or even create another one (Mikšík 1994).
- Factors connected to the level of fluid and crystalic intelligence of an individual (Amthauer 2005) and methods of their influencing by mental training.
- Personal and other factors connected to how an individual thinks and makes decisions, their preferred learning model, decision making strategies, relationship organization and value frames (Golden 2009).

Conclusions

In the article we have introduced the basic ideas of the Connatural Management approach (CNM) which focuses in particular on the development of subtle skills, or natural potentials and skills, which are inherent to everybody. We see CNM as one of useful and efficient approaches which can support individual development. One of our objectives is to be proactive in preparing professional managers for their future careers. This means constant monitoring of the business environment; i.e. what is currently required from a manager. It becomes clear that it is necessary to develop not only hard and soft skills, but also subtle skills, as tools to achieve managerial mastery. This is the reason we decided to apply the CNM approach to the managerial training X-tream management. According to Ullrich (Ullrich, Sieger 2014) it is necessary to create an environment which creates complex pressure for the whole team as well as each individual. Only in the process of completing the tasks together with other aspects the real qualities proving competence and skills can emerge. We fully agree with this and we are trying to create exactly this kind of environment at the X-tream Management training. This environment needs to challenge all areas – mental, psychic and physical as well. Using various approaches, diagnostic methods and techniques of working with an individual or a team allows us to further develop the parameters of the environment in question. As the same time we can diagnose individual performances of the participants which enables us to define for example the trends of increasing or decreasing performance within particular tasks, limit the burden so that is has development potential, research psychic functions and

personal features which can be considered as supporting qualities of reaching managerial mastership.

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