

WHAT MEANS 'CREATIVITY' FOR THE HR MANAGERS?

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Abstract

Nowadays it's impossible to find a job ad which doesn't list „creativity” as a requirement, and furthermore, creativity is also among jobseekers' needs. Apparently, the notion of „creativity” is used very often, so the question inevitably emerges: what exactly is meant by creativity, or the type of creativity HR experts have on the top of their lists of required competences when looking for employees who just hit the labour market? Our empirical research is based on over 100 HR experts' definition of creativity. We analysed the pool contentually, and the result is a generic definition of HR creativity.

Key words: creativity, content analysis, HR requirements, generation Y.

1. Introduction

In our earlier studies (Zoltayné et al. 2011a, 2011b) we proved that HR experts regard creativity as one of the top cards in requirement rankings. Creativity has an ever growing importance in the strategic objectives of the EU (EC 2014) and creative competences are also very much sought after beyond the boundaries of the EU, all over the world. (Jackson, Chapman 2012). Furthermore, references can be found in numerous articles (Maxwell, Broadbridge 2014; Patterson 2005) that the need for creativity is not only required by employers, but employees look for it too, especially those from Generation Y. One of the reasons for this is education, where the develop-

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ment of creative competences of students is gaining an increasingly marked focus (Dewett, Gruys 2007) and is also gradually becoming the norm². As a result, labour market newbies now come from a school environment which planted a creativity-based mindset in them.

There is a need for creativity, moreover, creativity has become a requirement. There has been a constant race in order to change and be changed, our environment has been changing dynamically, and with the processes getting quicker there has been a basic necessity to be flexible, but people also need to be creative for the sake of their sole survival. (Puccio, Cabra 2010) Innovation is seen as the successful and useful implementation of creativity in all the theories out there (Derecskei 2012). And the utility of innovation is beyond doubt, not only on a corporate level, but also on the levels of national and global economies. The sense of novelty is indeed useful for both the suppliers and the customers of a corporation, because clients will get an instant impulse of an „I’d like a piece too”-feeling of some sort. Within the corporation, creativity will boost efficiency and dedication, whereas it’ll mitigate stress and unnecessary red tape, and it will also facilitate time management. At the same time, creativity will increase the cohesion and productivity of a team. It has a motivating effect, it will enrich people with experience and spur them to become autonomous (Henry 2006). It has a strong positive effect on the employee too, because it increases (Barkóczi 2012) the subjective welfare and optimism of the individual, which in turn will spread to the fellow employees, with a prolonged effect, and as a consequence, „flow” experience will ensue (Csíkszentmihályi 2008). Thus, workplace creativity does not only lead to innovation, but it is also a source of enjoyment³. The need for creativity may be apparent now, but the question still remains: what exactly does the employer require? What exactly is this phenomenon which is so useful and much in demand? What is creativity?

2. References

There are innumerable definitions for creativity out there, but there are even more researchers who simply do not include a definition in their studies. According to Kaufman and Beghetto (Kaufman, Beghetto 2009), only 38% of scientific articles within their corpus actually gave an explicit definition of the term. We estimate this figure to be even lower. Even if researchers do include a definition, most of the time they quote it from

² We may return here to Programme EU 2020, the long-term objectives of which mentions creativity, including its use in the development of business skills as well as in basic education.

³ Of course we mustn’t forget about the dark side of creativity and the risks thereof (Gilson 2008).

someone (most commonly, the one by Sternberg and Lubart) or they merge various definitions.

Therefore, we created our own working definition. To achieve this goal, we limited the idea first (1), that is, we clarified what is not meant by creativity, then, we made a classification for the existing definitions of creativity (2), and, finally, we ran a content analysis software on a corpus of more than a hundred Hungarian HR experts' definitions (3).

2.1. Limiting the notion

Following and amending the article of Teresa Amabile (Amabile 1996) we also limited⁴ the definition of creativity:

1. Creativity is a necessary, but not adequate, prerequisite of innovation;
2. Creativity cannot be measured with IQ tests quantifying convergent thinking;
3. Creativity is neither an ability nor a talent;
4. Creativity may appear on all fields, but it is not needed on some.
5. A creative idea is useful, but not necessarily good;
6. Though creativity is a mental/cognitive process, it is not only problem solving.

2.2. Aspects

Limiting the notion will help us clarify which other side-notions (sometimes used as synonyms) the phenomenon should be separated from, however, this in itself will not enable us to describe it. In order to make a further step forward, we collected a string of characteristics along which creativity may be explained. Creativity research can be characterised by the exact focus of a research, this classification was first made by Rhodes (Rhodes 1961).

- (1) Product: Researches focusing on the result of creative work.
- (2) Person/ality: Researches focusing on the person/ality of the creator.
- (3) Process: Researches exploring the mental process of creative thinking or the act of creation itself, the process can be further categorised (Zoltayné 2005).
- (4) Place/Pressure: Researches on the effects and pressure of the environment.
- (5) Recently, two more P's have joined the list, one is Persuasion – based on research by D.K. Simonton (Simonton 2010), which is mostly used in works tackling Creativity itself, marked with a capital C. Persuasion was thus brought into the picture, which means that

⁴ For a more detailed version, see Zoltayné-Derecskei 2012.

the creator needs to have faith in themselves and in the end result. This self-confidence was also reflected in the opinion of the group we asked.

- (6) The other capital P, according to papers by Runco (Runco, Albert 2010), stands for hidden creativity, that is, the Potential of a person, versus his Performance, and it regards the relations of these two.

Another aspect of categorisation depends on which level we intend to apply creativity. Some might like to regard creativity as a feature of geniuses. But from a different viewpoint, which we also share, creativity can be found hiding in each and every one of us human beings. Fortunately, a need for clarifying these two controversial aspects appeared in scientific papers a couple of years ago. The various levels of creativity was summarised by Kaufman and Beghetto in 2009. We believe in the small c (like other theorists of organisational creativity) which can be measured with tests based on consensus, assessed by a manager or a co-worker. Along with some general features, field specific characteristics will also appear in them, they will be able to be linked to certain activities and fields, or as here, to the job of the individual. Anyway, in this case, the individual will work with a marked intrinsic motivation, with a typical exemplary outcome of incremental innovation. As we'll see later, the answers we studied also point to this direction. All this suggests that creativity is definitely present in everybody, and it can be brought out if appropriate environmental conditions and motivation are given.

In our previous analyses (Zoltayné, Nagy 2013) we managed to prove all of the above. We proved, regarding the presuppositions relative to the creative Person, that for people we asked creativity was the „small c” type, inherent in everyone. Regarding the creative outcome (Product) it turned out that it must be unique, novel and useful. Field specification (Press) was also proven, and we showed that the utility of creativity will be of any value on the relevant field only. And of the Process of creativity, we proved that phasing, development and measurability are all possible.

2.3. Creativity definitions

As for definitions of creativity, that of Sternberg and Lubart (Sternberg, Lubart 2007: 3) is by far the most widely cited, with references made by some 1,000 scientific papers. It goes: „creativity is the ability to produce work that both novel (i.e. original, unexpected) and appropriate (useful, adaptive concerning task constraints)”. As we see it, it's a fairly general definition, one which also grasps innovation. The best categorisation of creativity definitions was made in the article by Kozbelt – Beghetto and Runco (Kozbelt et al. 2010). The authors employed ten categories to arrange

the theories and the definitions they use. Among the aspects, they included the classic four P's as well as the small c – capital C.

Of these, we may place our own research into „economic aspects”, because the creativity influenced by market forces is the one that concerns us. However, we don't fully agree with their definition, which describes a creative person as someone being less flexible and much experienced, one who can implement their own ideas. If we shared this thought, we would have to limit our research to corporate leaders, whereas we intended to widen the target group further.

As we'll see, creativity definitions are important in the course of our content analysis, and the coding technique will also be based on these.

3. The research on display

3.1. Sample and tool

Our target group consists of HR experts (research population) who do the first round of selecting applicants. Although we tried to take a representative sample, distortions may have occurred. Our target number was 100 as a minimum, so it is indeed a good result that our form was filled in by 111 people, and 99 of them gave valid answers to the questions which were later to be examined. Interrogation was done in two sessions, and both relied on the database of the Career Office at the Corvinus University of Budapest.

Table 1. Statistics of respondents (N=111)

Characteristics	Ratios
Personal data of respondents:	
Number of answers:	111 answers, valid: 99 answers
Place of registration:	Online respondents: 68 ppl, Offline: 43 ppl
Sex rate:	Female: 76, Male: 35
Age group:	Minimum: 22 yrs Maximum: 62 yrs
Most common qualification:	Degree in Economics
Corporate data:	
Most common corporate profile:	Financial and business services
Most common corporate ownership:	Foreign
Most common corporate size:	Large enterprise (with employees above 250)

Source: own elaboration

Our empirical research is based on a questionnaire, one which can be subdivided into 5 main parts. In this article, we publish the analysis of the first two parts, in which we collected background information on respondents and their enterprises. The second part included an open question: „Please define what you think creativity means”. Open questions enable

respondents to answer with their own words.

3.2. Method

A bibliographic overview is not adequate, we also have to see what the HR expert respondents mean by creativity in practice. The best way to achieve this is by asking an open question about creativity, and doing an „intracasual analysis” afterwards. This way we tried to filter out and categorise the features and notions which best express the HR experts’ mental image of creativity. In our qualitative analysis, we didn’t rely on hypotheses but rather on observations, we tried to look for regularities without preconceptions, from the bottom up. (Babbie 2010).

Coding, which is the categorisation and classification of separate data, is the mainspring of qualitative researches. There are two types of coding. The first one, called close coding, relies on hypotheses generated by the process of coding, based mainly on other researchers’ studies, and the second one, open coding, aims to explain and categorise answers and collect the most common expressions in them. In order to test the stability of our results, we employed both methods in our research, and we also ran an automatic coding programme on it to code the text with regard to the most commonly used expressions.

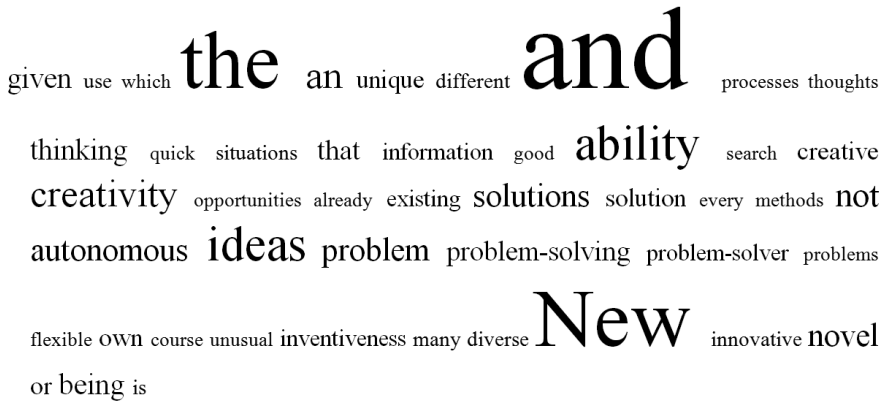
During the coding process, the researcher needs to explain the answers, which might lead to distortions. To evade this, Researcher 1 worked with open coding and Researcher 2 used generalised codes. In both cases, making notes and setting up a concept map was the first step. We used NVivo 9.1 for data processing. In the case of automatic coding, code units were the words, and in the case of open and close codings, whole answers were taken into consideration. We quantified correlation strength with the help of Pearson’s correlation chart, and code grouping was done via cluster analysis; classification can be visualised with dendograms (tree diagrams).

3.3. Results

3.3.1 Results of the automatic coding

The most common fifty expressions is shown on the following cloud chart, where font sizes represent the frequency of the words.

Figure 1. The most frequent expressions for describing creativity (N=111)



Source: own elaboration

After the automatic coding was done, we selected the expressions which also show a semantic bind to the notion of creativity we use. Then, we arranged them to others that overlap and match. Automatic coding served as a starting point in later stages of coding to identify codes which are essential to create a working definition.

In this stage, we also ran a search for the 100 most frequently used expressions, then, we had them arranged in alphabetical order. For codes with frequency rates of 10 findings or above, automatic coding was applied.

Table 2. Expressions used in automatic coding and their definitions

Name of code:	Frequency	Most common forms	Interpretation: all expressions containing the notion of...
think_wds	22 items	thoughts, thinking (n), way of thinking, thinking (a), for thinking	think*
situation_wds	11 items	situation (obj), in a situation, situation identification	situation*
able_wds	26 items	able, ability, their ability	able*
solve_wds	40 items	solution, its solution, solutionary, solutions, solutions (obj), solution (obj), solving (adj)	solve*
autonomous_wds	14 items	autonomous, autonomy	autonomous*
idea_wds	39 items	ideas, with ideas, inventiveness	idea*

problem_wds	43 items	problems (obj), for problems, problem solving, problem solver, for a problem, problem (obj)	problem*
problemsolve_wds	15 items	A subset of the above: solution for a problem, problem solver	problem solve*
new_wds	56 items	new, novel, innovator, innovative	new*

Source: own elaboration

Here, we worked with numeric data. We did straight data mining and simple filterings, so this step doesn't count as real coding, because it was in short of deeper correlations and interpretations. An example: the software puts synonyms like *given* and *existing* into separate categories, whereas it groups *problem* and *problem solving* together, because of abbreviation. The programme is unable to identify typing and spelling mistakes, and it disregards words which are new or differ from the ones appearing in the corpus. Such shortcomings, however, can be adjusted by the researchers.

3.3.2. Open coding

First, we utilised the so-called. „open coding method” (Babbie 2010), and after reading the text several times, ideas (codes) were formed; most often, they were grouped together, but after multiple codings they were shaped further. At this stage, coding was repeated three times. Before final coding, Researcher 1 organised the ideas into the following concept map:

Concept map

Requirements from the person (Personality):

1. Creativity as an ability and skill
 - a. Attitude, views
2. Characteristics:
 - a. open
 - b. flexible
 - c. inventive

Process:

Process orientation

1. decision preparation + decision making
2. thinking
3. problem solving

What is it like?

1. quick

Product:

1. idea

2. several variants
3. creation
4. innovation

What is it like?

1. novel, original
2. own, unique, autonomous
3. effective

Environment, what does it focus on? (Press)

1. field of expertise and skills are needed, focuses on a given problem in a given situation, during work
 - a. complex, on correlations
 - b. information is needed
 - c. company specific

The concept map displays an arrangement of the researcher's memos, which comprise the basis of code system interpretation. Creativity can hence be described with the four P's mentioned earlier (Rhodes 1961) (1), the personality features of a creative person can be given (2), and the result of creativity (3) is generated in a clear-cut process with distinguishable phases, which are greatly influenced by (4) the given environment. Respondents described creativity as some sort of an ability or a skill, one which relies on a different view or attitude. Creative people are inventive, open and flexible. Creativity was grasped as a form of thinking (mental activity), as divergent (with more than one solution) problem solving that leads to a decision. Interestingly, in many cases it was added that the process should be fast. Anyway, the result of the process is a new, unique and own idea which offers an effective solution to a problem. Respondents maintained the importance that creativity should focus on work while it should also be connected somehow to the given job (because destructive creativity doesn't count as effective), and in order to achieve that, the creative person has to be skilled in their field of expertise (be field specific).

In the course of open coding, the researcher organises the descriptions of the examined concept into so-called codes, and the theoretical correlation can later be checked with the help of factor analysis. Codes employed in this stage are summed up in the table below:

Table 3. The code chart used in open coding (Researcher 1)

Coding unit	Frequency	Definition and example (At each reference example, the number of the respondent is added)
ability, skill	27	for the expressions of ability and skill themselves, in compounds too, able to do something <i>„an ability by which we create outstanding, unique or special things”</i> (102)
autonomous, own	23	autonomous, own, <i>„autonomy, abstraction”</i> (98) <i>„tackling tasks on their own”</i> (42)
correlation, complex	10	knows the entire process, sees it and deals with it in its whole complexity <i>„They can tackle “problems” in a complex way, they know the connections. They should find the best solution from all the possible solutions. They should be able to think on their own.”</i> (21)
creation	19	makes, creates, realizes, works out something new <i>„an ability, by which we can make outstanding, unique or special things”</i> (102)
decision, decision-making	5	makes a decision <i>„In certain situations, swift and clever decision making.”</i> (15)
efficiency	18	efficient, efficiency, successful, result oriented, thus contributes to something <i>„...its novel but efficient solution”</i> (12)
existing, given	19	some starting point is needed, an existing, a given thing or situation <i>„- susceptibility for novelties, - a new approach of the existing, new categorisation, - recognising gray areas, new solution for an existing problem, identifying a new problem+suggestions for its solution”</i> (56)
field of expertise, professional knowledge	19	focusing on own field, own expertise, they know a field, and within, <i>„New ideas, approaches, brings initiatives to a process they ALREADY KNOW and use!”</i> (19)
flexibility	7	flexible, flexibility <i>„open, novel and flexible way of thinking”</i> (27)
given situation	17	comes up during a task, attached to a given problem, done with existing tools, under given circumstances. <i>„Finds alteration possibilities quickly in the tasks they tackle, thus making the process more effective and result-oriented. Can formulate why they suggest alteration. They make suggestions by understanding organisational objectives”</i> (4)
idea(s)	33	idea, clever <i>„clever way of thinking, innovative ideas, unusual ideas, special ideas perhaps, thoughts which generate ideas.”</i> (39)

What means 'creativity' for the HR managers?

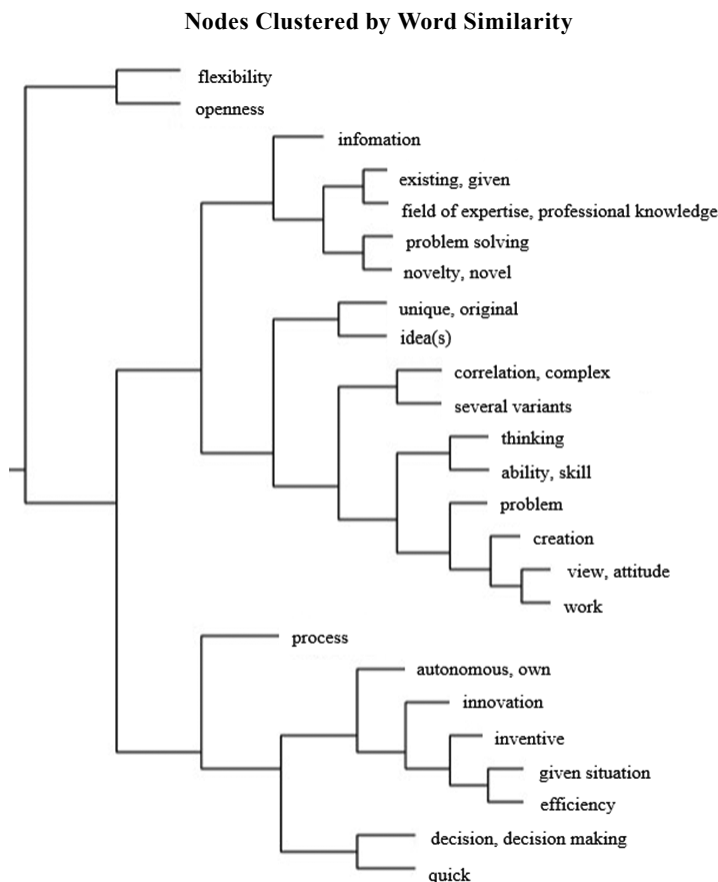
information	6	information is necessary, utilisation of information <i>„own ideas, autonomous problem solving by using resources and information at hand.” (38)</i>
innovation	9	renewal, innovative, innovation (only for the expression itself) <i>„an ambition for innovation and to be distinguished” (100)</i>
inventive	16	inventive, necessitates inventiveness <i>„inventiveness, striving to find new solutions” (29)</i>
novelty, novel	46	new, novel, novelty <i>„an ability to innovate” (88)</i>
openness	6	open for something, open eye, openness <i>„openness, continuous renewal...” (95)</i>
problem	13	problem is in the centre <i>„Active answer for problems emerging from task management. „(6)</i>
problem solving	49	for problem solving itself, looking for solving a problem etc. <i>„A novel, but effective solution for unexpected, unusual problems that emerge ”(12)</i>
process	6	thinking as a process, part of a process, work process <i>„...following processes, their continuous analysis and examination of the effects...” (7)</i>
quick	10	fast, quickly, immediately <i>„quick and unique solver”(30)</i>
several variants	12	divergent way of thinking, multiple solutions, several variants <i>„For each problem to be solved, they come up with several variants” (2)</i>
thinking	22	thoughts, thinking, thinking schemes, think up something <i>„an ability to approach things with new thoughts and unusual means...”(55)</i>
unique, original	19	original, unique, special, extraordinary <i>„comes up with original ideas, comes up with new ideas instead of usual patterns” (107)</i>
view, attitude	21	view, attitude, approach <i>„Applying a new/extraordinary view/approach in all walks of life/work” (20)</i>
work	17	related to work or a certain job „inventive and innovative solutions in task management/work processes”(65)

Source: own elaboration

Naturally, there are overlaps among the codes. If we were to examine which codes the respondents used the same words in, we would find that:

- flexibility and openness are dealt with together as features of the creative person, and it is necessary that they have information and knowledge in their fields of expertise;
- in the course of problem solving, there are original, unique and new ideas being born, generally in several variants;
- it can be described as a swift decision making process that leads to autonomous and effective innovation in a given situation.

Figure 2. Dendrogram of the factor analysis based on word frequency in open coding (Researcher 1)



Source: own elaboration

Figure 2 confirms the concept map sketched up during coding, so the logical connections between the examined phenomena were indeed proved by factor analysis.

The strongest Pearson correlations (above $r = 0,8$) were measured between the following codes: „work” and „attitude”, with similar words, and „field of expertise” and „professional knowledge”, with the most frequent occurrences of „existing” and „given”. The high correlation is also interesting between „problem solving” and „novelty, novel”; it may signify that creativity necessitates a novel way of problem solving. Based on this, we may produce a hierarchised code system, by which, we can (1) fine tune the code system, and (2) check the theoretical concept map, comparing it to the results of a cluster analysis. In the hierarchised code system, we can introduce the classic four P's as main (or parent) codes, because the concept map already gave a vague outline of those. This solution is a mixture of inductive and deductive methodology, as the concepts outlined by the text were coupled with categories from background literature.

Requirements from the person

(Personality):

- flexibility
- ability, skill
- view, attitude
- openness
- inventive

Process (Process):

- decision, decision making
- process
- thinking
- quick
- problem solving

Result (Product):

- creation
- unique, original
- effectiveness
- innovation
- autonomous, own
- idea
- many variants
- novelty, novel

Environment, what does it focus on?

(Press):

- in a given situation
- information
- existing, given
- work
- correlation, complex
- problem
- field of expertise, professional knowledge

The most frequently mentioned main category (of the 4P's) was that of the Product, so the answers focused most often on this category. This may derive from the fact that the frequency (number) of subcodes was the highest there.

If we examine the correlations, we will find the statistical indices to show that problem solving is definitely a Process, whilst view and attitude fall in the category of Personality, and Press is by far the most significant during creative work, linked to a certain field of expertise, thus creativity works best in some situations on the job with the result of something new.

3.3.3. Closed coding

In this phase, we tested generalised code units. Researcher 2 set up a code system, based on bibliographical taxonomies, and coded the text with it. In this case, codes originate from theories.

The chart clearly shows that categorisation here was also largely based off on the 4P theory, therefore a hierarchical coding (with main or parent codes and sub- or child codes) was implemented.

Table 4. The code chart used in close coding (Researcher 2)

Main code	Subcodes:	Frequency:*	Example and definition
Product	Valuable	3	Characteristics relating to the result or the outcome of creativity. <i>„The application of learnt material/ knowledge in every day practice, in order to be faster, more accurate, better and more effective in fulfilling our tasks.” (62)</i>
	Extreme / unusual	4	
	Practical	27	
	Useful	8	
	Outstanding	8	
	Different	10	
	Special / rare	10	
	Idea	29	
Process	Novel / new	43	Features relating to the process of creativity. <i>„Figuring and/or working out a new creation within a certain field of expertise.” (3)</i>
	Create / produce / figure out	28	
	Divergent	9	
	Process	5	
	Thinking	32	
	Imagination	19	
	Combination	8	
	Mystical / magical	5	
Person	Method	9	Characteristics and personal features describing the creative person. <i>„Creativity is the ability to find and establish new connections between existing knowledge and information. In comparison with intelligence, creativity aims to find new solutions while intelligence aims to find solutions. On the level of attitude, a creative person inclines to seek new solutions for a problem even though there is already a solution that works. (Artistic creativity and problem solving creativity are two different categories, at a workplace, the latter bears greater significance)” (45)</i>
	Problem solving	45	
	Attitude	21	
	Information	6	
	Intelligence	14	
	Knowledge	14	
	Ability	40	
	Inventive	27	
	Open / flexible	27	
	Experience	4	
	Talent	12	
	Ingenious	11	

What means 'creativity' for the HR managers?

Press	Discovery / progress	27	Features describing the environment of creativity. <i>„An unorthodox way of problem solving; discovery of opportunities for correction, oversight on certain business processes and the proper application of existing knowledge.” (94)</i>
	Adventurous	11	
	Enlightenment	21	
	Sheer luck	0	
Guilford	Analysis	7	Features describing creativity by Guilford. <i>„Creative is the co-worker who comes up with many new and unique ideas, easily sees the connection between various concepts; proves original and produces value during brainstorming with co-workers.”(47)</i>
	Originality	29	
	Appreciation	15	
	Sensitivity	26	
	Elaboration	35	
	Complexity	6	
	Elegance	24	
	Flexibility	12	
	Synthetising	12	
	Redefinition	24	

** In table 4 there are categories the frequency of which remained under 5 in responses; the validity and stability of these are therefore questionable – however, they take up a significant space in the reference material so they can't be disregarded.*

Source: own elaboration

Apparently, personal features were mentioned the most frequently, whereas the results in the codes of Researcher 1 were highest in the „product” category. This reflects on the freedom of research and the subjectivity of qualitative researches. However, the categories of problem solving and novelty represent the highest rate in appearance here, too. It is followed by ability, which matches the most widely accepted definitions in the reference material perfectly. That the feature of „elaboration” is ranked as the fourth most frequent feature is interesting, because this notion is absolutely „product” type. Thinking can also be linked to a person, though it can also be formulated to go with „Process”. The next two concepts are close to each other – idea and originality. The creative process boasts with several nearly synonymous words: create, produce, clever, discovery, progress. From this point, personal characteristics follow in line: practical, open, flexible, sensitivity, elegance, redefinition and enlightenment.

With the help of clustering we may see which codes overlap, and we can also check the theory: is statistical ranking the same as the theoretical one? Examining the overlaps between the words on the dendrogram, we find that although there are some detectable connections to certain main codes (4P), there is an apparent intermixing of terminology in the answers of respondents instead of a clear separation of the four conceptual categories.

By analysing the codes with Pearson correlations, however, the 4P from the reference material is outlined more markedly.

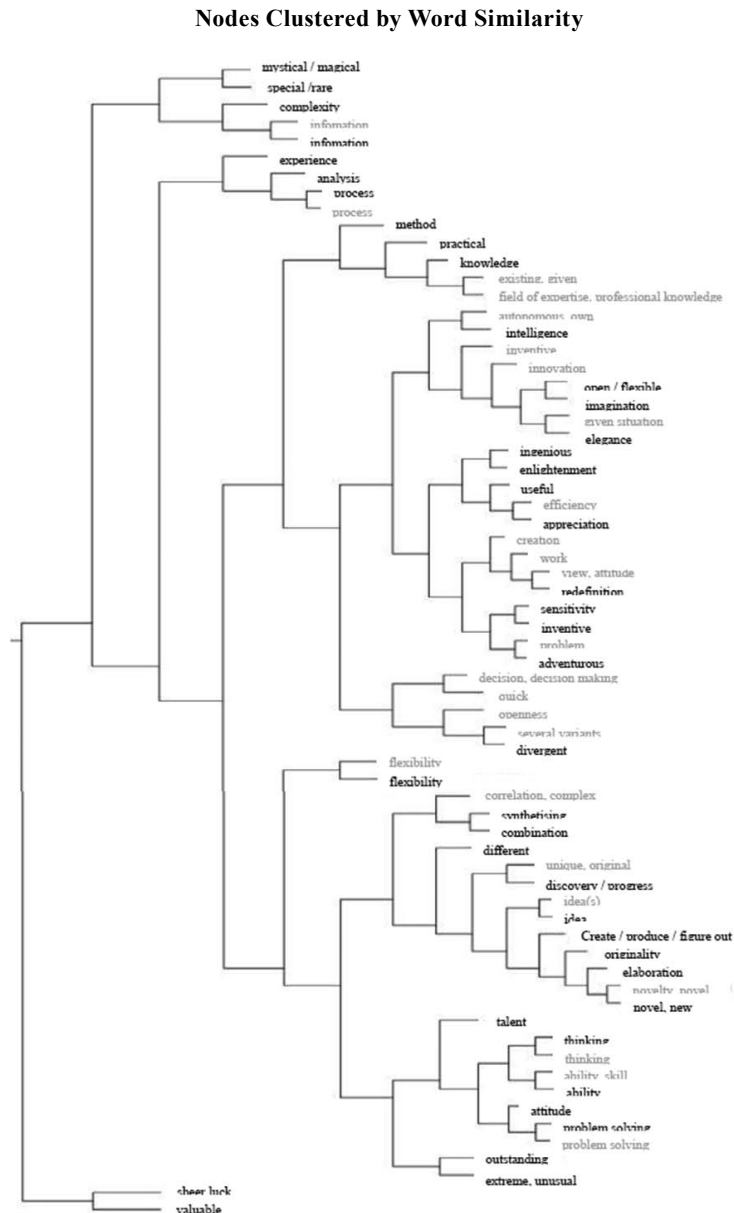
It's interesting that while the correlation between open and flexible thinking seems obvious, the strongest correlations are found between seemingly odd category pairs. For instance, „adventurous” is linked to „redefinition”, so based on the results above, it takes courage to redefine a problem. The need to elaborate on a novel thought also manifests itself clearly. In the reference material it is widespread that one of the possible way of problem solving lies in the redefinition of the problem. The correlation of the words „enlightenment” and „ingenious” evokes the classic process of creativity. To sum it up, respondents didn't really think in the four categories which served as a classification of theoretical results. Instead, they emphasised personal features the most.

3.3.4. Comparison of the results

The comparison of the results of the two independent researchers is a very important step, because the most significant overlaps represent the structure of the generalised answer of HR experts to the question of what they think creativity is. In the previous chapters we have already got at least two types of answers, because coding had been done with two distinct methods by the two researchers. Comparing the two 4P-type charts it seems interesting that the overlaps are not the same between certain P categories. For example, the two researchers interpreted personality and product differently, even though there is a very strong overlap between the two interpretations ($r = 0,964957$). By comparing the subcodes of the two researchers, the following overlaps take shape, regarding the similarity of words:

What means 'creativity' for the HR managers?

Figure 3. Dendrogram of open (Researcher 1) and closed (Researcher 2) word-based subcode clustering



Source: own elaboration

Here we can spot the strongest overlaps which are also underpinned by Pearson correlations. Summarising the codes which appeared in the findings of both researchers are: **new, idea, problem solving, thinking, process, original, open, flexible, create, information, ability**. These were also the most frequently used expressions, because the automatic codes include **think, able, autonomous, idea, problem solving** and **new**. These words need to appear somehow in our working definition.

An overview also emerges from the three codings, and it helps us to reach our final objective which is answering the question of **how respondent HR experts define creativity**.

4. Summary

In a scientific way, we tried to summarise and examine all the 99 answers by statistical methods. We employed three types of coding systems, thus we examined the answers to our question from three different aspects. Our main goal was to use all of the above to create a definition of creativity, with all the respondents' answers pooled and analysed.

The most important findings the analysis brought along are the following:

- There are expressions which appeared in all three codings, they were used the most frequently by the respondents: **think, able, autonomous, idea, problem solving** and **new**.
- These are supplemented by codes generated using open (inductive, text- and content analysis-based) and close (coming from the analysis of reference material, deductive) coding techniques.

If we take the overlaps between different codings into account, we can conclude that:

- In the course of creativity, the problem needs to be approached in its complexity and from perspective,
- For this, pieces of information need to be synthesised,
- There are multiple solutions (divergent) to the problem,
- It necessitates courage, self confidence, mysticity and imagination,
- The result must be useful and effective from the given aspect,
- It is generally linked to job and field of expertise (intelligence),
- It requires openness and flexibility,
- Which might lead to a new discovery or innovation.

So, a working definition was finally formulated with the help of analyses examining what HR experts look for when they seek creative young employees who are fresh to the labour market:

Creativity is an ability linked to thinking; it usually appears in the form of a new, independent idea which serves problem solving.

In conclusion, the categorisation based on the four P's found in the reference material acquired a new supporting proof here. The „small c"-level, field specific concept of creativity is also visible.

It was mentioned above that the present qualitative research was supplemented by a quantitative research using a questionnaire (Zoltayné, Nagy 2013), where the figures proved that HR experts look for „small c" type of creativity which can bring useful and new results. This creativity, found in everyone, can play a role in all walks of life, however, its utility appears as a value only in the relevant field. Also, the type of creativity described by us is both measurable and upgradable.

Conclusions

We hope to have successfully completed our goal, and as a result, we have a more accurate picture of what HR experts mean by creativity. The concept of creativity distilled from the answers given by the populous target group we asked can help employers to formulate their requirements more accurately. They can feature more accurate profiles in job ads. Moreover, in the face of requirements it can help HR selectors to more awareness in choosing and utilising tools for a more exact measurement of creativity. Then the applicants to be chosen will be given specific tasks and jobs. If the employer knows the environmental characteristics of creativity, the environmental characteristics influencing creativity will be organised and managed more confidently and purposefully. And of course the definition will also help the applicants, as they will be more self-confident and purposeful themselves in the know of company requirements. As a retrospective action, their creativity will be boosted. Consequentially, not only the personal well-being of the employee will be increased, but also the innovative qualities of the company. This is because the closer we get to solve the mystery of creativity, the closer we get to innovation itself.

Turning back to the EU 2020 programme, we see that three out of the five basic principles deal with creativity and innovation in the fields of education and employment. Special attention should be given to this aspect, because it is not enough to select creative applicants and develop their creativity at school beforehand. They also need to be found and kept by granting them an appropriate working atmosphere and environment. Only then can their creative abilities materialise in real market innovation and R&D results. As the need for creativity appeared in many places, definitions have

been mushrooming. In our article, we pooled creativity definitions from HR experts responsible for employee selection, with a sharp focus on the labour market. In this market, it is also visible that creativity is a very complex phenomenon and it shouldn't be identified with mere personal features, problem solving methods, environmental know-how, individual motivation, idea, and the utility of the result. We have to examine all of the above together, embedded into the given environment. Creativity on a personal level is important in everyday life or in solving problems at the workplace, but it's also important on the level of society, as creativity beats the path to new results in science and art, new discoveries, innovation and social regeneration. However, neither innovation nor creativity can be described individually, but rather a much more complex, multi-level model has to be examined for the best result. We have taken the first step by making the concept more accurate. In the future, we aim to concentrate on the effects which can have an influence on the individual's creativity. We will soon target organisational creativity with our scientific telescope.

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