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NASCENT MANAGERS' INITIAL ASSESSMENT OF DIVERGENT THINKING TRAIT

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Abstract

This paper is an autonomous piece from the ongoing interdisciplinary research "Personality and Weltanschauung", within we applied several instruments on 100 subjects (students) aged 19-22, both genders almost in equable distribution.

For this paper we used, assessed and approached the data acquired through the test on divergent thinking, aiming: 1. to identify the degree of divergent thinking of the students sample we took into study; 2. a practical use concerning teaching (adapting and optimizing the didactic process to the peculiarities of the current students' generations from the faculty where we teach); 3.the development / standardization of an assessment instrument for divergent thinking; 4. the dissemination of the results to the interested subjects of the research for psychological counseling and training.

The results: item 1, the "Nine Dot" problem for flexibility, was solved by 11% of the subjects; the item 2, "The disc of traits" for fluidity, showed 50% subjects with low level, 35% with medium level and 13 % with high level of fluidity; the item 3 showed, on its qualitative scale we designed, 14% subjects with very low level, 31% subjects with low level, 32% subjects with medium level, 16% subjects with high level and 6% subjects with very high scores on originality and re-definition.

Concluding, round about 80% of the subjects didn't obtain scores for a positive prognosis regarding a future role as efficient manager on coordinates which can currently exploit creativity, but, probably, a stronger (self) motivation of the subjects will positively change their results.

Keywords: Divergent thinking test, nascent managers, didactics, educational management.

1. Introduction

Creativity requires a higher level of thinking manifested by searching and finding effective solutions through the establishment of relationships between objects and phenomena. The creative performances correlate with a number of personality traits and psychological characteristics (Țuțu, 2008) of which the most important are: curiosity, nonconformity, flexibility of thinking, the ability for combinatorial and information transfer, the ability to empathize with people and divergent ideas, analytic-synthetic cognitive style, also convergent-divergent etc. (Omer, 2007).

The scientific concern for creativity manifested after 1950, stimulated by J.P. Guilford and subsequently materialized in a vast number of publications / studies / research on the subject is determined by the importance, complexity and impact of this dimension of human personality in social, economic, cultural matters (Popescu, 2010).

This is one of the reasons which determined a group of teachers and researchers from the Faculty of Management, Economical Engineering in Agriculture and Rural Development within the University of Agronomic Sciences and Veterinary Medicine of Bucharest to investigate this important dimension of the human personality, the creativity, in a specific manner and to a limited aspect (the intellectual factor for creativity named *divergent thinking*) that are however related with the educational management policy of this institute which aims to prepare students as future competitive actors on the labor market.So, the present article is, in its core, a study of the divergent thinking on a sample of 100 matriculates of the above mentioned faculty, being meantime an autonomous piece from the ongoing and more complex interdisciplinary research "Personality and *Weltanschauung*" (Zaharia, 2014; 2015) developed within the same institution.

2. Problem Statement

Academic training is in impasse. What is the educational ideal of a university graduate? Certainly the development of divergent thinking and the ability to make (right) decisions are traits that will ensure the success of a graduate on the labour market and the same time will improve the quality of the didactic process where they take part (Stoian, Toma & Vlad , 2015).

In this context, the study aims to investigate the creativity level of the students matriculated at University of Agronomic Sciences and Veterinary Medicine of Bucharest – Faculty of Management, Economical Engineering in Agriculture and Rural Development for an initial diagnosis / prognosis for their degree of adaptation to the labour market needs in terms of divergent thinking and for proper future measures at academic level in order to optimize the didactic process and to assist student in developing their creative skills if they require it.

3. Research Questions

The divergent thinking requires the existence of the skills: fluidity, flexibility, originality, elaboration, sensitivity towards problems, redefinition. Between these components of the divergent thinking are established cross-correlation relationships and, where appropriate, compensation (Popescu, 2010, p.49).

Divergent thinking is found among people with personality features like nonconformity, curiosity, willingness to take risks, persistence – and, regarding creativity, the personality traits that promote divergent thinking are more important than a high IQ alone.

Hence, a general research question is: what is the role of the effect skills (fluency, flexibility, originality, redefinition) and process skills (development, sensitivity to problems) in the development of divergent thinking?

And the research questions more specific for this brief research are:

1.1 What is the degree of divergent thinking of the students' sample we took into study?

1.2 Is it needed – and if it is, how could we (the teachers from the University of Agronomic Sciences and Veterinary Medicine of Bucharest – Faculty of Management, Economical Engineering in Agriculture and Rural Development) adapt and optimize the didactic process to the peculiarities of the current students' generations?

1.3 Is it pertinent to standardize the assessment instrument for divergent thinking we used for this research?

1.4 Is it pertinent to conceive and initiate a programme for training/ counseling the interested students with low scores on divergent thinking for better performances at their insertion on the labor market?

4. Purpose of the Study

The present article is a preliminary study of an intellectual factor for creativity, the divergent thinking, and it aims:

1. identifying the degree of divergent thinking of the students sample we took into study;

2. based on the research data we also sight a practical use concerning teaching (adapting and optimizing the didactic process to the peculiarities of the current students' generations from the faculty where we teach);

3. the development / standardization of an assessment instrument for divergent thinking.
    Collaterally, we have in mind

4. the dissemination of the results to the interested subjects of the research for future psychological counseling and training if they require it.

5. Research Methods

5.1. The *divergent thinking* trait

The divergent thinking trait is studied within the psychology of creativity in the context of which creativity can be defined / approached like: 1. product (the features of a creative product are: novelty, originality, value, social usefulness, extensive application); 2. process (creativity has procedural, phasic character); 3. general-human potentiality (it lays, in varying degrees and proportions, in everyone); 4. complex personality dimension (the transformative-constructional dimension is one of the most complex within the personality and it integrates the entire psychic activity) (Popescu, 2010, pp.11-12).

The factors of creativity, among which it is established interdependence, domination or compensation, can be classified generically in: psychological, biological, social[1] - the divergent thinking being an intellectual factor belonging to the psychological category and it is also a psychological term introduced by J.P. Guilford through thetridimensional model of the intellect. The divergent thinking names an operational dimension, respectively "a multidirectional thinking type, a search for various and logic alternatives, most of them peculiar than the usual ones by addressing the issue from different perspectives" (Popescu, 2010, p.74).

The divergent thinking requires the existence of the following skills: *fluidity* (the volume and the speed of the associative flow, respectively the number of the responses obtained); *flexibility* (restructuring the thinking in relation to new requirements or to the variety of answers, appealing to successive centering and decentering, easy passage from one reference frame to another, easy operation with various conceptual categories; it is the opposite of functional fixedness); *originality* (unusual, unpredictable, surprising, low frequency or unique answers / products – while corresponding with the requirements of reality); *elaboration* (the action itself of producing novel solutions by adding a large number of details and elements to a specific product); *sensitivity towards problems* (the ability to identify problems, to identify those vulnerable aspects whose remedy conditions the increased quality of a product); *redefinition* (the ability to use objects in unusual ways, less usual, different from the original destination).

Between these components of the divergent thinking are established cross-correlation relationships and, where appropriate, compensation (Popescu, 2010, p.49).

Divergent thinking is found among people with personality features like nonconformity, curiosity, willingness to take risks, persistence – and, regarding creativity, the personality traits that promote divergent thinking are more important than a high IQ alone (***, 2010).
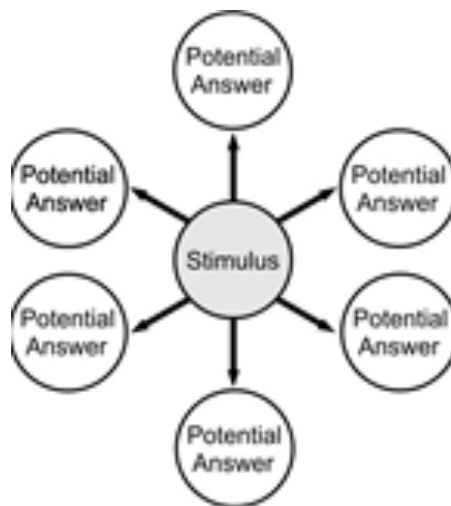

Figure 01. Divergent thinking map
Source: https://en.wikipedia.org/wiki/Divergent_thinking

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[1] The *psychological factors* include: intellectual factors (divergent thinking, convergent thinking, the perceptive style, memory, the creative imagination , the general intelligence); nonintellectual factors (motivation , temperament, character, affection , intimate resonance); special skills (various types of intelligence – q.v. Guilford 's classification: concrete intelligence, symbolic intelligence, semantic intelligence, social intelligence; the mathematical ability ; technical skills; musical ability; literary ability; aptitude for graphic arts; organizational skills; teaching skills).
The *biological factors* relate to heredity, age, sex, mental health.
The *social factors* combine socio-economic, cultural and educational conditions.

5.2. The test we applied

The test was taken from the work "Psychological self-assessment tests" elaborated by two Romanian specialists, PhD Gheorghe Arădăvoaice and PhD Ştefan Popescu (2010, p. 60-64), for the large public. The option for this simple and fast test is justified by the fact that the results are a preliminary indicator on the creative potential of the subjects, required 1. to estimate the consistency between the psychological qualities of the individuals and the study program they chose, 2. for a future teaching approach more effective, tailored to the students' features, 3. to establish a degree of correlation between the instruments applied in the context of the research "Personality and *Weltanschauung*".

The test consists of 3 items, each for a certain quality of the divergent thinking: item 1. the outgo of the Gestalt (the "Nine Dots" problem, Figure 2), which requires the union of nine points by four straight lines, traced continuously without back tracks on the way and without raising the pencil from the paper; this test measures flexibility; item 2. "The disc of traits" (Figure 3), which indicates 12 properties and asks the subject to name as many objects that possess each of these traits; this item measures the ideational fluidity; item 3, the using objects test, comprising 8 words designating everyday objects (stamp, clipper, candle, bubble gum, chair, bottle stopper, bedding, chalk) and calling for each object three possible uses, desirably "original, even unusual"; this item measures the originality and redefinition skill.
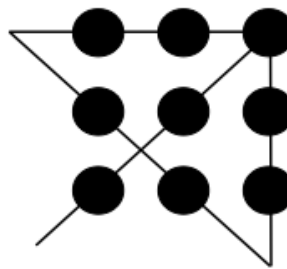

Figure 02. Item 1 The "Nine Dot" problem for flexibility (solution)
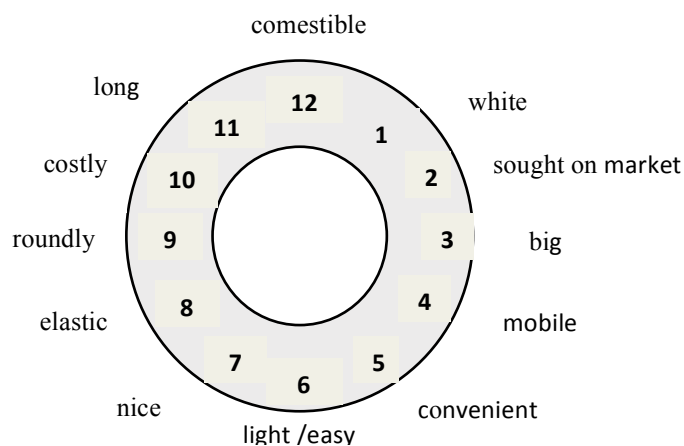Source: https://en.wikipedia.org/wiki/Insight

Figure 03. Item 2 "The disc of traits" for fluidity
Source: adapted copy of the original model

The time to solve the test was not limited, but we required being record by every subject.

The evaluation grid:

Item 1, the flexibility score: the issue indicates mental flexibility, while not solving indicates functional fixity;

Item 2, the fluidity score: the large number of discriminated objects indicates ideational fluency. The assessment of the individual scores is related to the extreme performances (min. / max.) within the sample, so the scaling is related to the peculiarities of the experimental group.

Item 3, the score for originality and redefining, appealed to two calculation methods:

- 1. a*quantitative* one, developed by the authors of the book from which we selected the test. This method consists of a scale with three ranges: 8-13 written uses indicate "high level of functional fixity", 14-17 written uses show "medium level of functional fixity", 18-24 written uses are rated with "low functional fixity or good level of mental flexibility, with imaginative and creative potential";

- 2. a *qualitative* one, developed by the authors of this paper, somehow complementary to the first one, measuring the correlation between the frequency index, the inventiveness index (the degree to redefine the given object) and the social value (direct or potential) of the proposed uses of the objects. Scaling is related to the peculiarities of the experimental group.

The validation of the results can be achieved in two ways: *predictive validation* (check if the persons appointed as creative through testing will confirm through valorous creative products) and *competitor validation* (calculating the correlations between the results obtained by individuals with creative potential socially certified and their creations – for example, in case of our students, we can investigate their results of other exams and tests which require creativity among other qualities, such as the marketing projects).

5.3. General characteristics of the experimental group[2]

We applied the test on 100 subjects matriculates of the Faculty of Management, Economic Engineering in Agriculture and Rural Development USAMV B, who are attending license studies within 2012 – 2016 and who chose as facultative/ optional subjects Philosophy and History of Culture (both subjects are normed with syllabus, courses and seminars for one semester); the students interviewed are aged from 18 to 26 years: 18 years 2%, 19 years 42%, 20 years 33%; 21 years 17%; 22 years 5%; 26 years 1%; there are 44 male subjects, 56 female subjects; 55 subjects are coming from urban areas, 45 from rural areas.

Regarding the fact that the subjects of the research are teenagers, it should be noted that the adolescence[3] is one of the most sensitive periods from the personality's conquest, although now the personality is not homogeneous, nor completed. Adolescence is essentially characterized by the maximum increasing of the perceptual capacities and representation, by significant transformation of the fundamental needs, by the development of the logical-formal structures, systemic thinking together with the ability of interpretation and assessment, planning, prediction, critical and self-critical spirit. The ego is

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[2] We record here the same "General characteristics of the experimental group" as in the previous papers *Analysis and Approach of Nascent Managers' Worldviews within the Personality's Investigation through the Weltanschauung – Ego Questionnaire*[11] and the following – because it is the same lot of subjects.

[3]it is quoted the period of adolescence established by E.Verza&U.Şchiopu, who frame as substages: preadolescence, adolescence itself (16 to 18 up to 20 years) and prolonged adolescence which comprise the youth integrated in work or study (18 / 20 to 25 years).

looking for a new balance and affirmation (Popescu-Neveanu, 1978, pp. 113, 231, 311; Sion, 2007, 190-221; Zaharia, 2014)

Also, the subjects are students of the Faculty of Management, Economic Engineering in Agriculture and Rural Development, so their professional training includes the development of complex abilities required for efficient leaders / managers4 and engineers, they have to become persons able to set goals for more people and convince these people to work together to achieve those goals. The personality traits of effective leaders include native features, among which decisive are the intelligence, the charisma, the ambition, the determination etc. – features polished by study and practice which educate the candidate toward: 1. good knowledge of the reality of the organization that he will lead; 2. assuring a good information system; 3. the appropriateness of management to the peculiarities of the organization and to the emergency situations within its evolution; 4. the orientation towards essential activities; 5. the rational organisation of the management; 6. a positive, still objective attitude towards recentness (including new methodologies); 7. concern for the employees (stimulating their initiative, creativity and accountability, increasing their motivation, concerning for their training in order to keep them competitive); 8. a balanced attitude regarding its function / task, people and organization; 9. the capacity for self-improvement (Stan, 2010)

This is the framework wherein will be integrated and whereat we will report the results of research by the previous described test. The data were analysed longitudinally and transversely, quantitatively and qualitatively, and they are partially processed with the SPSS soft.

6. Findings

The time to fill in took 10 to 75 min. and showed, indirectly, the subject's interest for the test (interest or disinterest); there is no correlation between time and the quality of responses.

Item 1 The "Nine Dot" problem for mental flexibility was solved by 11% of subjects.

Item 2 "The disc of traits" for fluidity:

Table 01. Results for ideational fluidity (item 2)

Atypical cases: - unresolved item 1% - answers outside the requirement 1%	Degree of *ideational fluidity* (extreme values per sample : min. 9 – max.57)		
	Low 9-24	Medium 25-40	High 41-57
2%	50%	35%	13%

Source: Own calculation based on data from the application of the test

Notices on the responses to item 2:

- 20% of subjects noted no answers to one or more traits marked on the disc and / or did not answer to the requirement (eg they enumerated synonyms or abstract notions instead of concrete objects adequated to the attributes);

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[4] within this paper we accept a *partial* coincidence between the spheres of these notions

- the heterogeneity of subjective perceptions and representations (eg, for some students "big" is the tree, the bus, and for others the sea, the human intellect, the universe; "costly" for some subjects is the phone, and for others their parents' death, the stupidity, the lost time; "long" can be the train but also the courses/classes or even life; "light" a feather or an exam, etc.);

- there are subjects who mentioned the same object for many different traits (eg the phone is the same time "searched on the market", "light", "expensive", "convenient");

- the objects with the highest frequency in subjects' responses are: phone, clothes, car.

Item 3: quantitative and/ or qualitative assessment?

Synopsis of the scores for originality and redefining - *quantitative* assessment, calculated according Arădăvoaice and Popescu (2010, pp. 60-64):

Table 02. Results for the quantitative evaluation on originality and re-definition (item 3)

No. of uses (cumulated from all 8 sub-items)	Approach	No. of subjects (%)
8-13	high level of functional fixity	14%
14-17	medium level of functional fixity	16%
18-24	low functional fixity or good level of mental flexibility, with imaginative and creative potential	70%

Source: Own calculation based on data from the application of the test

The *qualitative* assessment and centralization of scores for originality and redefinition was done based on the correlation between the frequency index, the index of ingenuity (the degree to redefine the given object) and the social value (direct or potential) of the uses for objects proposed by the subjects (scaling is related to the peculiarities of the experimental group). It should be noted that despite of our efforts, the approach retains a degree of subjectivity because framing the responses to the identified categories was sometimes difficult and also valuing responses, because:

- although the requirement called for "note three possible uses for each object; the original, even unusual they are, the better!", the polysemy *in the Romanian language* of the *terms* and the potential of interpretation of the subjects conduced to answers exploiting both on the denotative (concrete) meaning of the terms (*as objects*) as well as their abstract or symbolic meanings, which led to a considerable variety of responses and interpretability valuing them and also made difficult the translation in English of the rating scale and its understanding by a foreign speaker; it can therefore be disputed that we evaluated with high rating answers outside the requirement, but we still did it because the requirement does not explicitly exclude the step from concrete to abstract (from object to notion), step that some subjects trod toward originality and redefining - eg: 1. "*candle*, as common object with specific traits (straightness, length), inspire me a sporting exercise requiring the force of muscles to maintain straight, rigid the posture of the body"; 2. "*chalk*, as common object with specific traits, inspire me a nickname for a very pale or long and thin colleague"; 3. "*stamp* in the Romanian language is a poly-semantic term (homonyms: postage stamp, revenue stamp, quality, ring etc.) and many subjects took it from a context and

place him into another; 4. for *chewing gum* someone created a quibbling – "I use it… for Orbit", "orbit" in the Romanian language means "blindness" etc.;

- we met too general or incomplete answers;

- it must be take into account the subject's age and its characteristics (we design a category entitled "ludic" which, in this context, does not correlate with a social value of the response);

- regarding the quality of the responses it is possible that the subjects may not have been very motivated (to investigate their own personality…) and therefore they didn't try too hard.

We introduce further the rating scale (table 03) where the points awarded increase as the redefining degree increases. In the tables you may also find the results of the qualitative assessment based on nomothetic calculation (for frequency) and idiographic (summing, for every subject, the scores from each of the 8 sub-items it has resulted the individual qualitative score at item 3):

Table 03. Results for the qualitative evaluation on originality and re-definition (item 3)

The 8 sub-items of item 3	Uses denominated by the subjects	Frequency (total no. of answers found per specific category or use)	Rating / use
1. Stamp (poly-semantic word in the Romanian language, 14 uses)	Postal services	135	1
	Collection (philatelic)	59	2
	Taxformalities (as *revenue stamp*)	40	3
	As (vocal) quality, timbre	12	4
	As glue	6	5
	For design	3	5
	Symbol	2	5
	For a joke, game	1	5
	Seal	2	6
	Adhesive label	1	6
	Banner	1	6
	Bookmark	1	6
	"Tattoo"	1	6
	Badge	1	6
2. Clipper (poly-semantic word in the Romanian language, 19 uses)	Tool	133	1
	Laundry tongs	42	2
	Hair clip	26	3
	Paper clip caught	4	3
	Practical improvisation	14	4
	Dental tool	15	4
	Laboratory tool	1	4
	Instrument of torture	1	4
	Toy	1	4
	Claw	3	4
	Weapon	4	5
	Instrument for serving food (eg salad)	3	5
	Design, decoration	2	5
	Packaging sealing clamp	2	5
	"For fast reading, exposing leafs/written papers on a rope"	1	5
	"Block" for nose (against smells, liquids)	2	6
	Nickname	1	6
	Button	1	6
	March	1	6
3. Candle	Liturgical / religious ritual (in Romanian	97	1

(15 categories, 26 uses)	weddings, christening, death, Liturgy)		
	Light source	53	2
	To create atmosphere (romantic, festive)	30	3
	Interior decoration (for a chandelier, for the Christmas tree, for Halloween pumpkins)	18	4
	Combustion	14	4
	Heat source / heat	12	4
	Aromatherapy, perfume, meditation	11	4
	Anniversaries (on the cake)	10	4
	Collection	1	4
	Reuse the wax or the wick	10	5
	Symbol (in memoriam, sacrifice, passion)	4	5
	Name for a sporting exercise	3	5
	Adhesive (the melt wax)	2	6
	Floor slipperiness	1	6
	Signalization	1	6
4.4. Bubble gum (10 categories, 22 uses)	Chew, hygiene, oral freshener	102	1
	Ludic (balloons, to stick it on a chair or in one's hair)	42	2
	Effects of chewing : fun, addiction, soothing, mitigating the hunger, antidepressant	44	3
	Adhesive	33	4
	Plugging holes	8	5
	"Rubber"	1	5
	Modelling	1	5
	"I use it… for Orbit" (quibbling in Romanian language)	1	6
	Displaying a certain attitude	1	6
	Masticatory muscle strengthening exercise	1	6
5. Chair (poly-semantic word in the Romanian language, 11 categories, 28 uses)	Piece of furniture with the primary destination (sat)	118	1
	Decoration object (for indoor/ outdoor design, decor show, antiques, other art forms)	36	3
	"Games" (not specified what kind of)	4	3
	Multi-purpose object 1 (to carry, to relax, to sleep on)	21	3
	Multi-purpose object 2		4
	- support (for pots, clothes, instead table, desk etc.)	13	
	- to reachsomething positioned above (climbing)	13	
	- to block a road, a door or prop	3	
	- for sporting exercise (including recovery)	2	
	- improvised toilet (if drilled)	1	
	Figuratively (eg in the Romanian language it is homonym with a bad mark and, also, with "sensible")	8	5
	Material reuse (firewood)	4	5
	Easy transportation - wheelchair	1	5
	Punishment: isolating someone by layering on a chair away from the group	1	5
	Weapon	1	5
	Dance	3	6

6. Bottle stopper (21 categories, 33 uses)	To seal, to cover a bottle, a demijohn	105	1
	Collection	15	3
	Recycling (cork, plastic, glass)	12	3
	Games (not specified what kind of)	9	3
	To stop / to block / to seal other orifices than the bottle (including ears)	7	4
	Design, ornament, collage	16	5
	Games (eg "ball" for football, target practice)		5
	Warning, signaling by throwing in a certain direction, toward someone – or marking on water	2	5
	Improvised collar, fillet	3	5
	Brace (for a glass) or to anchor something (a sliding table)	3	5
	Keychain, accessory	2	5
	To draw circles	2	5
	Door Stopper	2	5
	To press (eg improvised thimble)	1	5
	Object of study (biological, chemical)	2	5
	Figuratively (constipation)	1	5
	Shards (if the bottle stopper is made of glass and breaks) to cut or to prick	1	5
	Handwork (carpet from bottle stoppers, a toy)	8	6
	To use it by inscribing (eg advertising or convertible value in refreshment campaign)	1	6
	Cork for fishing rod	2	6
	Bowl	2	6
7. Bedding (15 categories, 30 uses)	Bedlinen	130	1
	Ludic ("ghost", various other disguises)	30	3
	Picnic, beach (for sitting)	15	3
	Covering, camouflage	11	3
	Inheritance, gift	4	3
	Seductive game	1	3
	(Re)using the sheet as such or its fabric for:		4
	- tailoring (eg dress, bags , dust cloth);	15	
	- protection against dust	4	
	- curtain at the window ;	4	
	- tent ;	4	
	- umbrella ;	4	
	- design ;	2	
	- tourniquet ;	1	
	- fuel ;	1	
	- background for photos.	1	
	Hammock	3	5
	Canvas for painting	1	5
	To tow	1	5
	Projection background for diapositive	1	5
	Mesh for capture (fish or something/ someone thrown from above)	2	6
	"String" (twisted)	1	6
	"Escape"	1	6
	"Parachute"	1	6
8. Chalk (14 categories, 26 uses)	Writing, colouring, drawing (ludic, recreational, school use)	158	1
	Tricks, cheating (consuming the powder	29	2

to trigger fever, tricks in the pharmaceutical industry)		
Mark (in tailoring, carpentry etc.)	32	3
Using chalk dust:	10	3
- Games (eg sneezing, to powder, to mask) ;		
- "Mixed with water it can cover stains"		
Using white chalk dust for bleaching	2	5
Warning, by throwing the chalk to someone	1	5
Throw on target	1	5
Football (the chalk is the "ball")	1	5
Gift	1	5
"Experiments"	1	5
Weapon	1	5
Proper noun for Crete island ("chalk" in the Romanian language is "creta")	1	5
Blotter, camouflage (egcolouring over a text)	10	6
A coloured chalk can become dye for a liquid	1	6
"Artificial Snow" (chalk dust)	1	6

Source: Own calculation based on data from the application of the test

Table 04. Results for the qualitative evaluation on originality and re-definition (item 3)

	Degree of originality and re-definition (extreme values per sample: min. 11 – max.77)				
	Very low <25	Low 25-40	Medium 41-55	High 56-65	Very high >65
No of subjects (%)	14%	31%	32%	16%	6%

Source: Own calculation based on data from the application of the test

7. Conclusion

Both teachers and students, we are aware that a candidate for a managerial job can be tested in a "paper-pencil" way (like the test we applied) or through a practical, and that also a real manager is continuously, directly or indirectly, probed in his job, starting with his vision up to every time he takes a decision – and this is one of our reason regarding the option for the divergent thinking test we applied.

Synthesising the results of the test, we note that: item 1, the "Nine Dot" problem for flexibility, was solved by 11% of the subjects; the item 2, "The disc of traits" for fluidity, showed 50% subjects with low level, 35% with medium level and 13 % with high level of fluidity; the item 3, which measured the originality, showed, on its qualitative scale, 14% subjects with very low level, 31% subjects with low level, 32% subjects with medium level, 16% subjects with high level and 6% subjects with very high scores on originality and re-definition.

Taking into account the peculiarities of age and gender of the subjects (e.g. the immaturity of the adolescent's in the make personality), the characteristics of an efficient leader / manager and the results of the test for divergent thinking, we note that round about 80% of the subjects didn't obtain scores for a positive prognosis regarding a future role as efficient leader on coordinates which can currently exploit

their creativity, such as the appropriateness of management to the peculiarities of the organization and to the emergency situations within its evolution, the concern to stimulate the employees' creativity together with the capacity for self-improvement – but this remark is susceptible to amendments for at least two reasons:

- probably a stronger (self) motivation of respondents would have caused a positive change in the results;

- checking on a subsample of 6% cases, we didn't find a qualitative correlation between the results of the three items applied, as follows: among the subjects with very high score for originality and redefinition (6%), only one solved the item 1 and had high score at item 2; among the other five, three solved item 1 and all of them have moderate scores at item 2. Based on this finding, we propose that the interpretation of results should remain related to the sample, otherwise the number of variables and the combinations of subjects' individual traits get out of control, exceeding the present study.

It must be also said that the subjects with high scores on the test, we mention that they (re)confirmed the assessment within the teaching activities in which they took part, proving good initiatives, very good organization and performance solving the didactical tasks – showing high flexibility, fluidity, originality.

Regarding the didactic process, we shall inform our colleagues (teachers and managers) from the Faculty of Management, Economical Engineering in Agriculture and Rural Development about the results of this test to debate further our teaching formulas in order to adapt them and to optimize the educational act.

Regarding the instrument for divergent thinking used for this research, we intend to keep it for initial assessment of the divergent thinking trait, considering it standardized for item 1 and 2 and keeping only the qualitative evaluation for item 3. (Minulescu, 2004, pp. 219-245)

And the final remark is that we consider pertinent to conceive and initiate a programme for training/ counseling (Georgescu, 2004)the interested students with low scores on divergent thinking for better performances at their insertion on the labor market, if they require it.-

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