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## ASSESSMENT OF THE ADAPTIVE-INNOVATIVE STYLE IN AN EDUCATIONAL ENVIRONMENT<sup>1</sup>

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### Abstract

*It tracks the state of innovative and adaptive styles (Kirton, 1976). The way decisions are taken outside or within established rules and procedures. The study was conducted on a sample of 189 people, of whom 51.9% were men and 48.1% were women, between 14 and 49 years of age. The results obtained show significant correlations between the desire for "things to do better" and "different" and the aspects of academic motivation for achievement, self-esteem and self-improvement. The assertion that moderate behavior as well as type A behavior positively impacts on academic motivation is confirmed. The results of the survey can be used in the field of education to increase motivation.*

Keywords: Innovative and adaptive styles, educational environment

### 1. Introduction

The society development in the near and far future won't be possible, if the current society doesn't invest in the future society, which will inherit this investment. Important, from the different types of investments is the education and qualification investment, which will ensure qualified young people, not only capable of building, but doing it in a modern and adequate to the new consequences way. That's why the educational institutions in Bulgaria need to change their old-fashioned method of teaching and direct themselves to the education for the future, which base are the innovations. The new technologies which entered every sphere of our lives, put the definition of creativity in the first place. It's obvious that only people with innovative style would deal adequately with the challenges which face their life. This report is targeted to research the adaptive-innovative style, seen in the educational environment and how this style will affect the academic motivation

### 2. Theoretical productions

In result of the appeal of The American Psychological Association from 1950, which pays special attention to the small number of researches and the huge social need of developing theories, which explain the creative behavior of the people and the ways it would be constructively stimulated. The researches on the creativity drastically rise in the past century. Creativity gains big social importance, and as a quality, which every person, in a small or big portion, has inside them. Many

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<sup>1</sup> Under the draft Ordinance - 2018 "Personal prerequisites for academic motivation" and under the draft Ordinance - 2018 "Innovative Leadership Practices in an Educational Environment"

and different are the definitions of creativity, because of the fact that the researchers focus their work on different aspects of creativity, and not only working on the creative behavior at all. That's why two scientists, which overcome this disadvantage, define the creativity as a syndrome, including the following elements:

- Processes, laying in the base of the ability of the person to generate new ideas or perceptions;
- The characteristics of the person, which favour the operationalization;
- The characteristics of the person, which favour the transition from ideas to actions;
- The properties of the situation, contributing for the readiness of the person to engage with creative behavior;
- The properties of the situation, influencing the rating of the productive efforts of the person.

From what has been said so far, it's clear that the research on the creativity of the people is important, especially on the showed in the introduction context. This is like that, because the process of education would be way effective. The better we know the intellectual platform of every person, and the creative style is its base element, over which it's going to be build up the new education and are going to form the new skills, and also the motives of the person which wants to upgrade.

In the research community, the studying of the creativity links itself with the following approaches : examination of the creative product – the researches are targeted towards the criteria for identification and the characteristics of the creative results; learning the creative process – learning the essence and the flow stages; defining of the personal and psychological characteristics of the productive person; establishing of the conditions of the environment, which stimulate or complicate the productive realization.

As it has been said, subject of this report is the interconnection between the creative style and the academic motivation.

The academic motivation is a definition, which describes the common motivational status, connected with the teaching on a specific speciality. The common motivational readiness is an indicator for the quality of teaching in specific area, and also it's a predictor for additional information on the studied disciplines. The academic motivation includes cognitive and social motives or the corresponding inside and outside (Markova, 1983; Harter 1986). The inside motivation connects with actions, which brings pleasure, but in terms of the outside motivation, the actions is a tool for achieving other, referenced with the consistence of results from the work. These motives develop on the base of specific needs, realized or unrealized, on the basis of valuables, criteria, content, power, place in the hierarchy (Bozhovich, 1997; Gordeeva 2006; Ryan R., Deci E., 2000). The opposition <<inner and outer motivation>> in different theoretical productions connects the outer motivation with four types of regulations of the behavior – extroverted, introverted, identified and integrated, characterized by different grade of need from autonomy and controlling your own behavior (Gordeeva, 2006; Ryan R., Deci E., 2008). The academic motivation is perceived like a difficult multidimensional structure, which includes not only motives, but goals and strategies for success, and cognitive mechanisms (Gordeeva, 2006). Like this the academic motivation plays important role in the implementation of the effective educational activity (Strenze, T., 2007).

In the examination is attached a Questionnaire for grading of the adapt-innovative style (Kirton Adaptation Innovation Inventory - KAI). The questionnaire is created from Kirton (1976). It

consists of 32 items, each of which is evaluated at a 4 degree scale : “very hard”, “hard”, “easy”, and “very easy”. Values higher than the middle indicate innovation, and below the middle indicate adaptation. According to Kirton’s theory, the innovative style suggests “things to be done differently”, to create, and to search for solutions for the problems outside the given paradigm and the established rules and procedures. The adaptive style is targeted towards at “doing things better”, at searching for solutions and generating new ideas within the existing paradigm.

Besides the common grade, which determines the preferred style, the items form three grading scales:

Originality (O) – tendency in going far from the consensus, with breaking the basic ways of thinking with new ideas. Item for example is “Person which can see the old things from a new angle”

Efficiency (E) – denotes precision, methodicality, consistency, working ability and performance. Item for example is “Person, which can precisely retouch every detail in his work”.

Conforming (R) – tendency towards seeking for security in the group, authorities, the rules and the norms, avoiding the risk. Item for example is “Person, which conforms with the opinions of the others”.

The questionnaire is adapted for Bulgarian conditions from Ivan Paspalanov and a team of psychologists. The test for the psychometric characteristics of the questionnaire and the separate scales show acceptable coefficients of inner reliability and it gives basis to be used for the needs of the empiric research.

The chosen diagnostic tool to examine the academic motivation is build over the concept of existence of inner and outer motivation, and also amotivation. It has been used the original method “Scale for academic motivation”, developed by T. Gordeeva, and adapted in Bulgarian conditions by Petkov, Mitevska-Encheva, 2017. The different types of motivation are shown in connection with the needs of academic activity (need of knowledge, achievements, own development), and also outer in regard to the needs of the person from autonomy and respect.

The factor analysis confirms the existence of seven independent scales, which characterize the three types of inner motivation (from knowledge, achievements, and self development), three types of outer academic motivation (motivation for self respect, introverted and outer) and amotivation.

The attached questionnaire consists of seven scales:

1. Scale of “Cognitive motivation”, which measures the strive for learning the recent, entering into the learned, connected with experience of interest and pleasure from the process of learning.
2. Scale of “Motivation for achievements” – measures the strive for achieved maximum higher results in the process of learning, to be felt pleasure from the solving of difficult problems.
3. Scale of “Motivation for self improvement” – measures the strive for improvement of the abilities, the potential of the learner in the limits of the learning activities, achieving the feeling of mastership and competency.

4. Scale of “Motivation for the self respect” – measures the desire to learn, because of the feeling of self significance and for better self-assessment, connected with the achievements in the learning.

5. Scale of “Introverted motivation” – measures the motives for learning, which dictate from the feeling of shame and the feeling of duty in front of yourself and the people which are significant to you.

6. Scale of “External motivation” – measures the situation of compulsion to carry out learning activity, which is due the need of following the rules of the social system, for problems to be avoided from the student. From this the needs of autonomy frustrates a lot.

7. Scale of “Amotivation” – measures the absence of interest and meaning in the learning process.

### 3. Results

To the people that were surveyed, 98 men and 91 women, were applied the described methods above. The information are showed in the following tables and interpreted in according to the theoretical model.

According to Kirton’s theory, the responds are separated into two groups: the people with higher baud rates for the average of the sample are indicated as innovators – 46.6% of the surveyed, and the people with lower baud rates than the average are indicated as adaptors – 53.4% from the sample.

The check for discriminating function of the gender in terms of creativity showed, that it doesn’t distinguishes statistically the people, of course, on the condition that this observation of the specific sample of 189 people. Only at the scale which scales the so called originality, we see known tendency of prevalence of the baud rates from the women over the ones from the men.

**Table 1. Differences between the men and women in terms of adapt-innovating style**

Style	Gender	N	M	SD	F	Sig.
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<b>Originality</b>	Men	98	34.68	4.02	3.64	.058
	Women	91	35.90	4.74		
<b>Efficacy</b>	Men	98	15.41	3.30	2.79	.097
	Women	91	14.62	3.23		
<b>Compliance</b>	Men	98	26.95	4.91	0.00	.983
	Women	91	26.93	4.90		

Similar are the observations and in terms of discriminating function of the age of the surveyed people. The results are shown in the following table.

**Table 2. Differences between the different age groups in terms of adaptive-innovative style.**

<b>Style</b>	<b>Age</b>	<b>N</b>	<b>M</b>	<b>SD</b>	<b>F</b>	<b>Sig.</b>
<b>Originality</b>	From age 19 to 25 years old	78	34.97	<b>4.59</b>	0.36	0.699
	From age 26 to 35 years old	69	35.59	4.27		
	Above 35 years old	42	35.29	4.37		
<b>Efficacy</b>	From age 19 to 25 years old	78	15.54	3.13	1.81	0.166
	From age 26 to 35 years old	69	14.52	3.42		
	Above 35 years old	42	14.90	3.25		
<b>Compliance</b>	From age 19 to 25 years old	78	27.69	5.29	1.68	0.189
	From age 26 to 35 years old	69	26.58	4.75		
	Above 35 years old	42	26.14	4.21		

The absence of statistically important differences between the age group in terms of adaptive-innovative style shows, that it is relatively stable personal characteristic, which doesn't change in the time under influence of the environment!

The results in the following table, show that the adaptive-innovative style like a common characteristic and the separate factors of KAI are related with the aspects of the academic motivation. The adaptive-innovative style like an overall indicator moderate to weak, but

statistically significant correlates with every aspect of the academic motivation, except the outer motivation and the amotivation.

Table 3. Correlation between adaptive-innovative style and the aspects of academic motivation

<b>Innovation/Adaptation</b> <b>Academic motivation</b>	<b>Originality</b>	<b>Efficacy</b>	<b>Compliance</b>	<b>Innovation/adaptation</b>
Cognitive motivation	<u>.224**</u> .002	<u>-.282**</u> .000	<u>-.235**</u> .001	<u>-.185*</u> .011
Motivation for achievements	<u>.169*</u> .020	<u>-.328**</u> .000	<u>-.200**</u> .006	<u>-.203**</u> .005
Motivation for self improvement	<u>.196**</u> .007	<u>-.292**</u> .000	<u>-.231**</u> .001	<u>-.192**</u> .008
Motivation of self respect	<u>.203**</u> .005	<u>-.303**</u> .000	<u>-.277**</u> .000	<u>-.223**</u> .002
Introverted motivation	<u>.018</u> .809	<u>-.051</u> .483	<u>-.151*</u> .038	<u>-.120</u> .099
Outer motivation	<u>-.103</u> .158	<u>.117</u> .110	<u>.075</u> .302	<u>.064</u> .382
Amotivation	<u>-.263**</u> .000	<u>.259**</u> .000	<u>.236**</u> .001	<u>.141</u> .052

Main characteristics of the innovative behavior, identified with the high values at KAI are strive for change, breaking the status quo, going beyond the accepted rules and procedures, seeking for new solutions.

#### 4. Conclusion

The analysis of the data from the examination of the grade of adaptive-innovative styles and their connection with the academic motivation shows, that it exists stable constellation of lines: originality, effectivity, compliance and innovation, are moderate to moderately connected with the academic motivation. The strive for originality is moderate to moderately connected with four of the aspects of the academic motivation, there isn't connection with the introverted and outer motivation, but with the amotivation and the moderate negative connection. This suggests the existence of originality and innovating behavior stimulates the motivating processes. Something more is that the results support the assumption, that a part of the grades of the innovative styles strengthen the academic motivation. These assumptions have a serious practical-appliance process in the academic conditions, based on a deep scientific analysis.

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