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The influence of positive reinforcements on motivation for education and training activities

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Abstract. This article presents a research on the influence of positive reinforcements on motivation for education and training activities. The study is conducted in a real educational environment. Numerous different theories perceive the motivation of the individual as a driving force for every action and behavior. In this paper, we draw attention to the positive reinforcements, rewards and incentives provided in the learning process, which could influence the motivation for learning and respectively the better performance of the students. The subject of the study is the positive reinforcements, rewards and incentives provided in the training process. The object of the study is cadets in the last year of their education in the Military Science professional field, specializing in Organization and Management of Military Units at a Tactical Level at the National Military University in Bulgaria. The study includes students and cadets in the first year of education as control groups for comparison.

Keywords: education and training activities

JEL Codes: M1

1. Introduction

The management is often associated with the idea of the owners of businesses to exercise most or all management functions. There was an overlap in the ownership and management before the industrial revolution mainly because of given the importance of most commercial operations. In the 21st century it is becoming increasingly difficult to split management into separate functional areas. There are branches related to the management as innovation management [1, 2, 3], public sector management, management of education, project management, and management of work stress. Issues such as communication between people and organizations and the process of making management decisions gained new meaning in the terms of personnel policy pursued by the organization and the issue of promotion of social responsibility and its relation to ethics and organizational culture. Social management has appeared and has become a separate field of science including aspects of the fundamentals of management, human resources management, and motivation management [11].



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2. Fundamentals of the study on the influence of positive reinforcements on motivation for education and training activities

Numerous different theories perceive the motivation of the individual as a driving force for every action and behaviour. In this paper, we draw attention to the positive reinforcements, rewards and incentives provided in the learning process, which could influence the motivation for learning and respectively the better performance of the students.

Ancient philosophers such as Aristotle, Heraclitus, Plato, Socrates, spoke of the need as a "teacher of life". Democritus (460-379 BC) considered the need for such a major driving force, which did not only implements the emotional states, but also makes the human mind "sharp" and let change in language, speech and work habits. Heraclitus (544-483 BC) defined the needs as "living conditions" and believed that moderation in addressing the needs facilitated the development and improvement of intellectual skills. Aristotle (384-322 BC) made a significant step forward describing the mechanism of human behaviour. He suggested that ambitions were always associated with a target that brought a person positive or negative results. On the other hand, the driving force of people's behaviour is determined by the needs and associated feelings of satisfaction and dissatisfaction to perceive the usefulness or useless of the object. By the end of the 20th century the theories of motivation put the priority on people and their needs.

According to Biological theories of motivation, the individual behaviour is the result of internal physical, chemical and biological processes and the physiological structure of all needs is a source of reasons for the behaviour. At the same time the source of activity of each organism appears as perceived needs of the body, something missing at a time. Biological motivation theories argue that the natural state of the body is inactive, and therefore it needs instigator powers to be forced into activity.

All researchers in psychology are also interested in the formation of motivated human behaviour, either unconscious mental processes described by Freud's model of the individual characteristics of Jung or super traits of Eysenck. The theoreticians such as Adler, Erikson, and Fromm recognized the crucial role of cultural, social, family and interpersonal impact on human behaviour. According to some Psychoanalytic theories of motivation, motivation is a fundamental need, aimed at strengthening and self-actualization of all aspects of human being and the most important goal in life, after forming oneself is self-actualization.

Behaviourist theories of motivation explain the behaviour of individuals with the scheme "stimulus - response", i.e. the ability of the organism to respond to the various incentives of environment. Thorndike and Skinner are the most prominent representatives of these theories. Skinner's analyses show that the impact of the environment determines our behaviour. In his opinion all human behaviour is due to external stimulus so people's actions are defined by their experiences, and their behaviour is determined and controlled by the external environment.

In the second half of the 20th century the motivational concepts of Kelly (1955), Hekhauzen (1955), Atkinson (1964), and McClelland (1971) postulated the leading role of the mind in the determination of human behaviour. The representatives of this direction defined motivation as an impulse drive. It is to achieve certain results obtained through the abilities - namely, willingness to succeed and to avoid failure. We call these theories Cognitive theories of motivation.

In the last decades of the 20th century the point of view that the behaviour of individuals depends on complex interactions between factors of the internal environment of the individual and the external

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environment became popular. The culmination in the development of this concept marked the so-called classical behavioural school and turned into social cognitive theory of motivation. According to Albert Bandura people do not depend on the influence from external forces, and appear as free human beings. Regarding the problem of motivation, emotions and actions, an individual could be taught to control events in his own life. Julian Rotter assumed that man was an active participant in the events in his life. His theory provides that the main types of behaviour can be learnt in different social situations. Rotter believes that human behaviour is guided by a desire to achieve the desired objectives. Rotter considers people as "targeted individual minds" who seek to minimize their behaviour and to maximize incentives and penalties.

3. Positive reinforcements and their influence on motivation

This paper presents the results of the research on the influence of positive reinforcements on motivation for education and training activities which ensued from the question – "Does motivation by rewards lead to a better performance at the university?/ To what extend your motivation derive from the superiors rewards to get a better performance at the university?". The cadets, who graduated in the academic years 2013/2014, 2014/2015, and 2015/2016, were the basic target group that was interviewed. First-year cadets and students who started their training in the academic year 2013/2014 were included as control groups for comparison. [6, 7, 8]

Recruiting information regarding the survey is carried out through a combination of research methods. The main method of the study is empirical survey conducted in a real educational environment. Mathematical and statistical methods are used for processing and analysis of survey results and their graphical representation. [3, 4, 5]

Table 1 Comparison between the levels of agreement with the statement that motivation through rewards leads to achieve better results

	Consent,	Indifference,	Dissent,
Respondents	%	%	%
Cadets 1st academicyear 2013/2014	66	13	21
Students 1st academicyear			
2013/2014	81	10	9
AlumniCadets 2013/14	60	21	19
AlumniCadets 2014/15	67	21	12
AlumniCadets 2015/16	58	18	24

/all studied groups of respondents/



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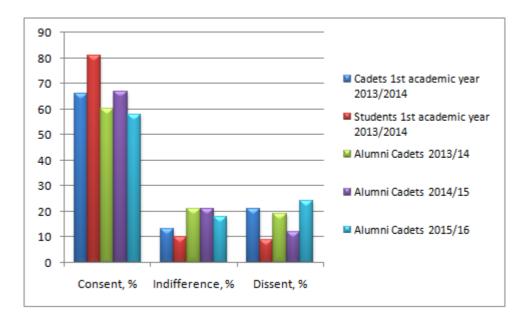


Fig. 1: Comparison between the levels of agreement with the statement that motivation through rewards leads to achieve better results /all studied groups of respondents/

The comparison between the levels of agreement with the statement that motivation through rewards leads to achieve better results is shown on the first figure. In taking into account only alumni cadets' result we can see that the highest level of consent with the statement motivation through rewards, given by academic and command staff, leads to achieve better results is expressed cadets who graduated in 2014/2015. The second position is for alumni cadets who graduated in 2013/2014, while the third position is for alumni cadets who graduated in 2013/2014, while the third position is for alumni cadets who graduated in 2013/2014. It is visible that all of them are consent with that that positive stimuli of motivation will lead to good results at any activity – education, training process and military activities at the university. When we include the control groups we can find that the results become a little different. The highest level of consent is expressed by the students 1st academic year 2013/2014 of their education. The data which from the control group of cadets and students and the cadets who graduated in 2014/2015 are close in value. These results show the relationship of anticipation / first academic year /and the final result. They are roughly covered for the cadets if we exclude civilian learners who are a separate group that is not subject to strong external control.

Undoubtedly, all theories of motivation support the relationship between award-motivation-result. Typically, it is described in the following dependence - we increase the positive reinforcement - we assure the motivation for human activity - we increase the result. This, of course, cannot be an endless process, but it has its own natural end, i.e. from a certain level onwards, even increasing the awards/stimulus/positive reinforcement would not lead to improvement in the end result, as human mental and physical abilities have their limitations.

For the purposes of our research, it is more important here that our learners consider that positive motivation is the way that will lead to positive results rather than coercive measures imposed on them by academic or command staff.



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A detailed description and comparison of the groups of objects studied was then made in the study.

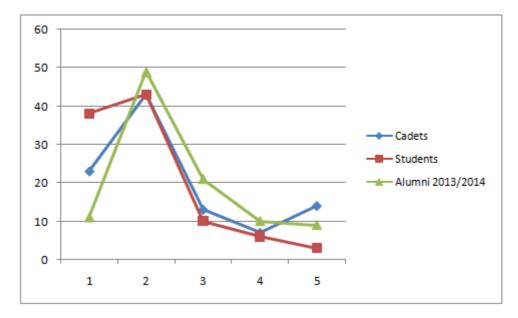


Fig. 2: Comparison of measuring the degree of dependence between learning motivation and positive reinforcements 2

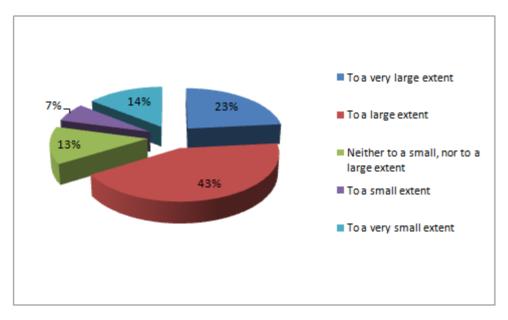


Fig. 3: To what extend your motivation derive from the superiors rewards to get a better performance in the academy? Cadets 1st Academic Year of Training 2013/2014 Academic Year



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Figure 2 shows the Comparison of Measuring the degree of dependence between learning motivation and positive reinforcements according to the answers given from cadets, students and alumni cadets from 2013/2014 Academic Year. It was important to be done such a comparison because to exclude the influence of periods of time. It is shown that the alumni cadets are agreeing to a large extend with the statement.

Figure 3 shows the answers from the Cadets 1st Academic Year of Training 2013/2014 Academic Yearto a question: To what extend your motivation derive from the superiors rewards to get a better performance in the academy?" It shows the following distribution -23% of the respondents are agreeing to a very large extent, and 43% of the respondents are agree to a large extent, which shows a significant percentage of consent -66%. Indifference is expressed by 13% of the respondents, 7% of the respondents are agree to a small extent and 14% of the respondents agree to a very small extent, which is quite a significant result.

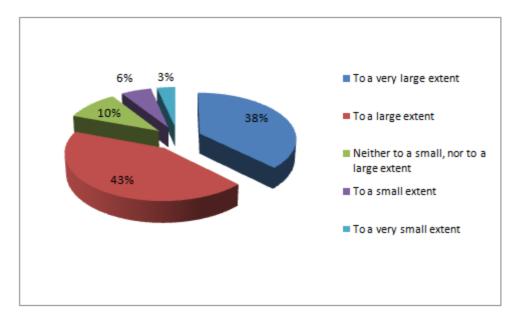


Fig. 4: To what extend your motivation derive from the superiors rewards to get a better performance in the academy? Students 1st Academic Year of Training 2013/2014 Academic Year

Figure 4 shows the distribution for students. 38% of the respondents are agreeing to a very large extent, and 43% of the respondents are agreeing to a large extent, which shows a significant percentage of consent – 81%. Indifference is expressed by 10% of the respondents, 6% of the respondents are agree to a small extent and 3% of the respondents agree to a very small extent, which is very low as a value.

The data analysis shows that the consent of cadets and students in their first academic year of training is not quite equally but similarly. We can find it in the data which are presented in the table and figure below.



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Table2. Comparison of the degree of dependence between learning motivation and positive reinforcements - students and cadets 1st Academic Year of Training 2013/2014 Academic Year

To a very large extent	To a large extent	Neither to a small, nor to a largeextent	To a small extent	To a very small extent	as %
23	43	13	7	14	Cadets
38	43	10	6	3	Students

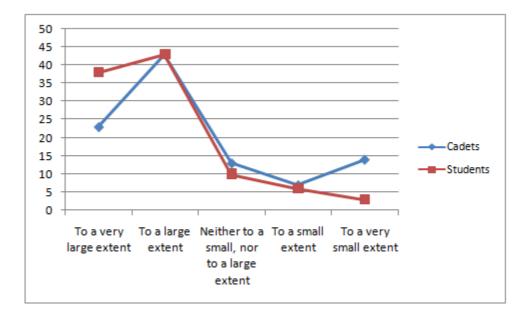


Fig. 5: Comparison of Measuring the degree of dependence between learning motivation and positive reinforcements – Control Groups

When we form a common result for the two groups, we can see the importance given by the learners as a whole to the positive reinforcements at the beginning of their training. This tendency is preserved, albeit with variable value over the years, until the graduation of the trainees. See figures 6, 7 and 8.



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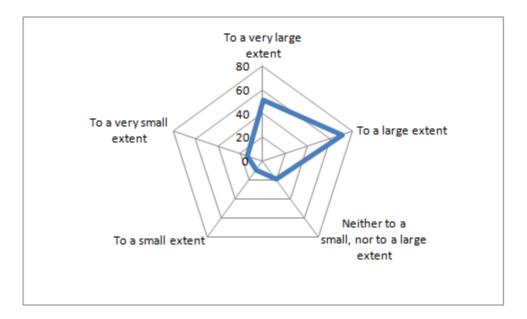


Fig. 6: Measuring the degree of dependence between learning motivation and positive reinforcements-Control Groups - General Presentation

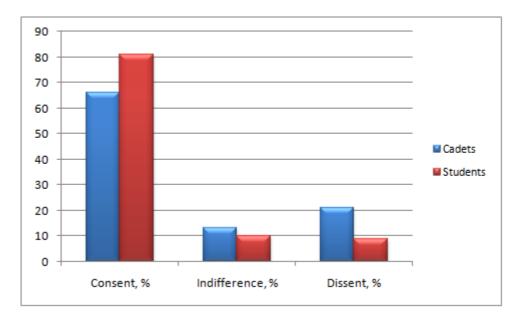


Fig. 7: Levels of agreement with the statement that motivation through rewards leads to achieve better results - Control Groups



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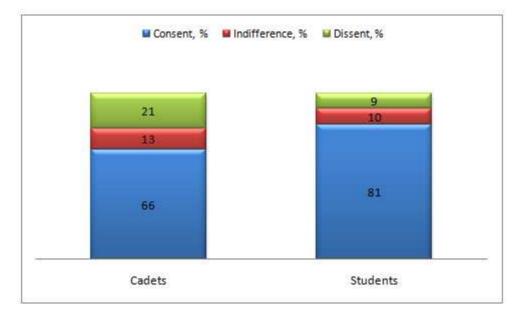


Fig. 8: Comparison between the levels of agreement with the statement that motivation through rewards leads to achieve better results - Control Groups

4. Conclusion

Conclusions can be drawn from the above-mentioned results. The motivation and behaviour of individuals can be effectively changed in the way of supporting the desired effects. Motivation is higher when individuals receive rewards. People are motivated by what they expect to get as a result of their action or behaviour.

In every aspect motivation through rewards implies positive emotions and satisfaction for the individual. It is no accident that the principle of hedonism is that one seeks to reduce the pain and any negative emotion or action directed at himself, and at the same time to increase the pleasure, positive emotions and actions. At the same time, a study of such magnitude could be developed and included a study of individual human needs. Of course, this is a huge amount of work and it is not just for an author, but could be for a whole team of researchers. Consideration could be given to: physical and mental needs, needs for achievement, social relations or autonomy, self-defence, leadership, influence and control over others, avoidance of failure, assistance or support people in need, seeking help or sympathy from others, establishing relationships, defining ideas and concepts and many others which are important in the training process..

5. References

- Kirova, M. Graphical Presentation of Risk Assessment in Management Decision Making Process.// The 7-th International Scientific Conference Business and Management `2012 – Selected Papers, 2012, No 1, pp. 386-391, ISSN 2029-4441.
- [2] Kirova, M. Management of Motivation Opportunities during the Introduction of a New Product.// Review of



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Management and Economic Engineering, 2009, No 5, pp. 8, ISSN 1583-624X.

- [3] Kirova, M. Methodic for evaluation of the innovation potential.// Journal of Entrepreneurship and Innovation, 2009, No 1, pp. 30-40, ISSN 1311-3321.
- [4] Nichev, N., Petrova, E., Professional Training of Future Logistic Officers at the National Military University of Bulgaria, Sibiu, Romania, The 21st International Conference The Knowledge-Based Organization, Nicolae Balcescu Land Forces Academy, 11-13 June 2015, pp. 259 ÷ 263, ISSN 1843-6722
- [5] Petrova, E., A Study on the Cadets' Satisfaction with Choice of Academic Specialty at the National Military University, Bulgaria, Socio-economic Analysis Scientific Journal, Department of Economics, St. St. Cyril and Methodius University, Bulgaria, 2016 / Volume 8 / Number 1, ISSN: 2367-9379, pp. 38 ÷ 43.
- [6] Petrova, E., Methodology on Study of Motivation for Education based on Opinions' Research of Cadets from VasilLevski National Military University, Bulgaria, Socio-economic Analysis Scientific Journal, Department of Economics, St. St. Cyril and Methodius University, Bulgaria, 2015Book 2/ Volume8/ISSN: 2367-9379, pp. 127 ÷ 133.
- [7] Petrova, E., Motivation for Education and Learners' Satisfaction with the Choice of Military Specialization or Civilian Specialty, The 23rd International conference Knowledge-Based Organization, Sibiu, Conference proceedings ISSN 1843-682X, ISBN 978-973-153-274-5, 15-17 June 2017, Vol. XXIII No 2 2017, pp. 355-360.
- [8] Petrova, E., Specific Subjects of License Academic Program an Important Stage of Professional Development of Future Military Leaders at the National Military University, Bulgaria, The Annals of Spiru Haret University, Romania, Volume 6, issue 3, 2016, ISSN 2393-1795, ISSN-L 2068-6900, pp.113 ÷ 119.
- [9] Petrova, E., Study on Motivation for Education by use of Control Groups for Comparison at the National Military University, Bulgaria The 23rd International conference Knowledge-Based Organization, Sibiu, Conference proceedings ISSN 1843-682X, ISBN 978-973-153-274-5, 15-17 June 2017, Vol. XXIII No 2 2017, pp. 361-366.
- [10] Petrova, E., Zegoicea, Andrei, Comparative Case Study Regarding Cadet's Motivation Methodology, Revista Academiei Fortelor Terestre, Nicolae Balcescu Land Forces Academy, Sibiu, Romania, Vol. XVIII, Nr. 3 (71), Trimestrul III, 2013, pp. 301 ÷307.
- [11] Socio-economic Analysis Scientific Journal, Department of Economics, St. St. Cyril and Methodius University, Bulgaria, 2015Book 2/ Volume8/ISSN: 2367-9379, pp. 127 ÷ 133.
- [12] Terziev, V., Nichev, N. Analysis of the Environment for Military Educational System Functioning and Its Impact on the Preparation of Cadets for Military Professional Activities in the Republic of Bulgaria. Proceedings of 4th International Conference on Education, Social Sciences and Humanities, 10-12 July 2017, OCERINT, Dubai, UAE, p. 627-630, ISBN: 978-605-82433-1-6.
- [13] Terziev, V., Nichev, N. Research of the motivation for management activities of cadets in the course of their military professional training. Proceedings of the VII International Academic Congress "Fundamental and Applied Studies in EU and CIS Countries" (United Kingdom, Cambridge, England, 26–28 February 2017), Volume VII. Cambridge University Press, 2017, pages 659-670.