

THEORETICAL AND PRACTICAL ASPECTS OF STUDENTS' MOTIVATION IN THE MILITARY EDUCATION SETTING

Koba TCHITCHINADZE

Chief of Section Personal Readiness Analysis of J-1 Department of Georgian Defense forces, PHD student Georgian Technical University

Recognized by international experience one of the most important factors in the success of the country's armed forces is a motivated and educated human resource. Consequently, in the contemporary stage the world's developed countries' armed forces pay great attention to the education, training and career development of the personnel.

The article describes close relationship between military education, educational process and the motivation of the military servicemen. It is noteworthy that in the armed forces there is no uniform approach to motivate military personnel, the motivation process is more oriented towards the challenge of internal interest by methods of 'punishment and encouragement', focusing on the educational process in the field of military education, and the external impulses and motivation of students.

In the theoretical aspect not only the theory of contemporary motivation and demands – Richard Ryan and Edward Des 'the theory of self – determination, Victor Vroom's theory of expectations and Abraham Maslow's theory of expectations and requirements, but also substantiates the advantages, values and importance from the scope of practical aspects of military education. Students' motivation sources and types are based on the results of the survey conducted by the Georgian National Defence Academy students. In this article the possibility of implementation of the proposed theories in the field of military education is reinforced and stated by examples and practical research results of well-known authors. Various forms and methods of student motivation are discussed, the role and abilities of teachers and instructors in students' motivation. It focuses on the theory of self-determination that expresses the importance of motivating students among different people with different status and thus closely related to the educational process. The theory focuses on three basic universal requirements such as autonomy, competency and relatedness. The article presents the summary and recommendations of values, importance and advantages of using theories of motivation and demands in the field of military education by students, teachers and instructors.

Key words: motivation, theories of motivation and needs.

1. INTRODUCTION

Nowadays the well-designed strategy, structure and equipment is not enough for the efficiency of the armed forces, yet highly motivated, educated human resources with high combat capabilities make it effective. Combat readiness in military service can be reached with motivated personnel (Strategy for development of military personnel management systems in Georgia 2014). The practice in military service shows that the commander and the subordinates are successful in their military career if they are aware of the essence of motivation. Military institutions, as well as in civilian institutions are focused on motivating students and providing high quality of education. 'knowing more about how students are motivated, and what you can do to structure a class that positively affects students' motivation, can make significant difference in student engagement and learning' (Svinicki, et al., 2014 p. 139). In the learning process, students can reveal maximum effort and interest if they are properly motivated and have real incentives.

Learning process has also been studied through the concept of intrinsic and extrinsic motivation. Intrinsically motivated student is one whose maintenance and involvement in the class activity happens as consequence of the task itself because it is interesting and

creates satisfaction. The extrinsically motivated students is one who performs a task or activity because students are interested in the option of the other person (Edvalda, et al., 2013). 'Students can perform extrinsically motivated action with resistance, resentment, and disinterest or alternatively, with an attitude of willingness that reflects an inner acceptance the value or utility of a task' (Ryan, et al., 2000).

While assessing students' motivation it is desirable to find out the source of motivation. It comes from the inner state of the student and needs external impacts or stimulation. This process should be carried out in the family, at school, within training or through media. This is an environment where adults are situated, and see, and consider current events behave and reacting appropriately. From this point of view, it can be said that the level and type of motivation is determined by the environment.

People have not only different amount of motivation but also different kinds of motivation. They are different not only in level of motivation but also in the orientation of that. Orientation of motivation relates to the underlying goals and attitude that give rise to action (Ryan, et al., 2000). Military educational setting is the place where student's inner state or interest can be supported by classroom or battlefield training. Also external incentives are

widely used to support students to be successful in everyday life. Therefore, students in a military educational setting can be motivated by different things: getting education, being employed, financial perspective, military career, improving physical condition etc. Thus, if one is able to understand the nature of the behaviour of young people and consequent impact of it, it is possible to obtain the desired results.

This article argues that **in the military educational setting there is no one common approach how to motivate students**. However, Maslow's Theory of Needs, Ryan and Deci's Self-Determination Theory and Vroom's Theory of expectancy provide a sound basis for motivating military students. To support the argument, the first chapter defines the concept of motivation and describes some theories of motivation and needs. The second chapter discusses practical application of the theories of motivation and needs in military educational settings. Final part of this article is conclusion.

2. DEFINITION OF MOTIVATION AND THEORIES OF MOTIVATION AND NEEDS

The following chapter provides a definition of motivation and an overview of some theories of motivation and needs. The essence of theories such as Self-Determination

Theory (STD), Maslow's Theory of Needs, and Expectancy Theory are outlined.

To start with, it needs to be considered what is meant by "motivation". Different authors provide several definitions how this term could be understood. For example, Ryan and Deci define it as follows: 'To be motivated means to be moved to do something. A person who feels no impetus or inspiration to act is thus characterized as unmotivated, whereas someone who is energized or activated toward an end is considered motivated' (Ryan, et al., 2000). Brown has described it as: 'Motivated behavior is generated by physiological or psychological needs and wishes. Needs activate and direct a person to his goal to get a sense of satisfaction. The purpose of this action to satisfy a person's needs' (Brown, 2007 p. 5). Another definition of motivation, which is connected to education is the following: 'Students' motivations is considered a galvanizing energy in the teaching and learning process that permeates all levels of education, both in relation to the amount of time student spend studying as well as their academic performance and achievements of immediate satisfaction in their lives' (Ryan, et al., 2015). Motivation in learning can be related to many factors: the internal needs and drives of the student, the interaction between the individual and their experience, the learning which

students have already done, and/or the aims they set for themselves (Rogers, et al., 2010 p. 110).

Giorgi Shubladze and his colleagues divide motivation theories into two categories: content and procedural theories. The content theories of motivation are based on the internal needs that force humans to behave a certain way. Significant representative of the content theories is Abraham Maslow (Shubladze, et al., 2011 p. 153).

The Theory of Needs consists of five hierarchic classes from basic to most complex: (starting from the most basic) Physiology, Safety,

Love/Belonging, Self-esteem, Self-actualization. Physiological needs are breathing, food, water, sex, sleep, homeostasis, excretion. Safety needs mean security of body, employment, physical security, resources, morality, the family, health, property safe environment. Need for belonging means friendship, family, sexual intimacy. Esteem needs are self-esteem, confidence, achievement, respect of others, respect by others and finally self-actualization - morality, creativity, spontaneity, problem-solving, lack of prejudice, acceptance of facts (see figure 1).

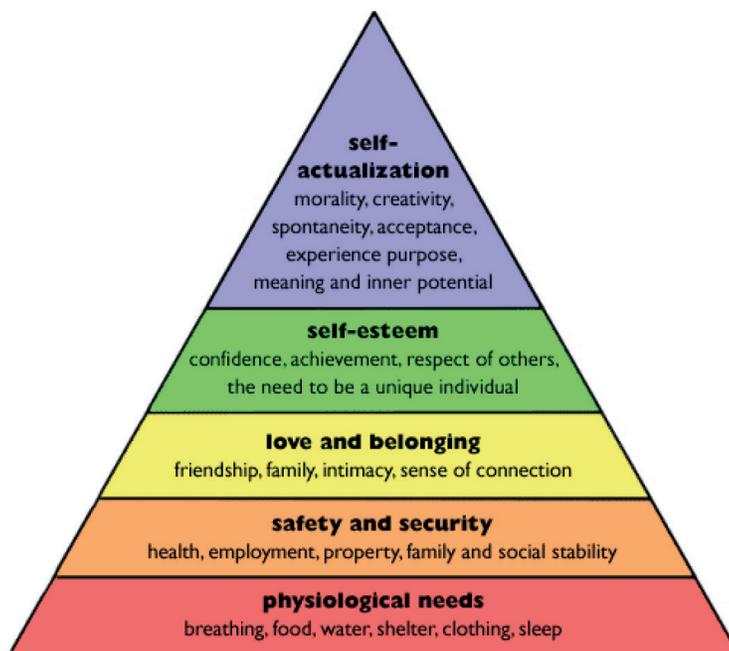


Fig. no. 1. Maslow's hierarchy of needs (Maslow, 1943)

The basic requirements are built upon the first step in the pyramid. According to this theory, the needs on the basic level of the pyramid must be satisfied before people start struggling for the satisfaction of needs of upper level of the hierarchy. In case of reaching the satisfaction of needs on each level, it terminates functioning and the higher level of this hierarchy becomes motivator of the behaviour (Shubludze, et al., 2011 p. 157)

As for the procedural theories, their basis is the behaviour based on perception of expectations and the possible results of selected behaviour. The Expectancy Theories of motivation belong to Procedural theories. Vroom's theory of expectancy (1964) describes the interaction between the effort and the outcome. He suggested that motivation, expectancy, instrumentality and valence are related to one another by the equation. $\text{Motivation} = \text{Expectancy} \times \text{Instrumentality} \times$

Valence` (Expectancy Theory of Motivation, 2011).

Jones and colleagues (2006) explain the theory in terms of three key words: expectancy, instrumentality and valence. Expectancy is the perception of how much effort a person needs to devote to achieve a certain level of performance. Instrumentality is a person's perception of the degree to which certain level of productivity is achieved. Valence is how desirable each result is that can be received by the person (Jones, et al., 2006 p. 217). The essence of the expectancy theory is that `To be motivated, people must value the reward, think they can perform, and have reasonable assurance that their performance will lead to reward` (Dubrin, 2007 p. 292). In the educational context this theory means that students typically direct their behaviour toward activities that `they value and in which they have some expectancy of success` (Svinicki, et al., 2014 p. 143). Figure 2 illustrates the expectancy theory of motivation.

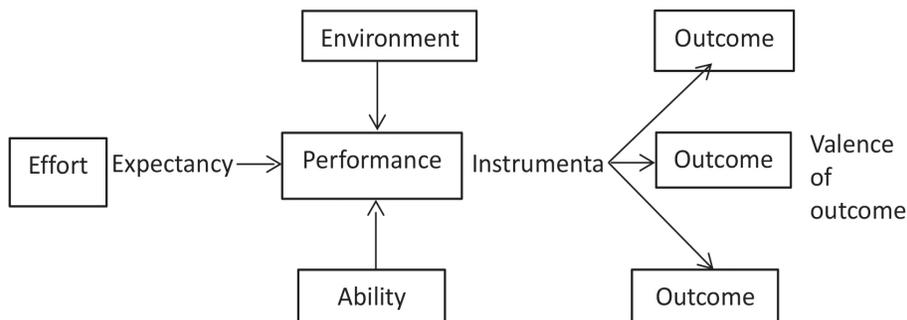


Fig. no. 2. The Expectancy Theory of Motivation (Dubrin, 2007 p. 239)

Figure 2 shows that if the execution process stops, the result will not be got. It should be noted that each result has its own value and one outcome can manage and influence other results. The environmental factor is very important. The environment may be family, school, military institution, friends and others that help in the process of performing behaviour. As previously mentioned, students typically direct their behaviour toward activities that they value and which they have some expectancy of success. Teachers can be benefit from knowing that they need to foster both. Students need to feel that there is a realistic possibility of success and that the outcome valuable to them (Svinicki, et al., 2014 p. 144).

When it comes to motivation theories, it is important to refer to psychologists Edward L. Deci and R. Ryan and their Self-Determination Theory (STD). 'SDT is concerned with supporting natural or intrinsic tendencies to behave in effective and healthy ways' (Ryan, et al., 2000). Ryan and Deci (2000) explain the theory in terms of internally and externally motivated behaviour and the key psychological needs: competence, autonomy and relatedness.

To make the critical distinction between behaviours that are volitional and accompanied by the experience of freedom and

autonomy—those that emanate from one's sense of self—and those that are accompanied by the experience of pressure and control and are not representative of one's self. Intrinsically motivated behaviors, which are performed out of interest and satisfy the innate psychological needs for competence and autonomy, are the prototype of self-determined behavior. Extrinsically motivated behaviors—those that are executed because they are instrumental to some separable consequence—can vary in the extent to which they represent self-determination. Internalization and integration are the processes through which extrinsically motivated behaviors become more self-determined' (Ryan, et al., 2000).

Self-Determination theory is focused on the psychological level, and it differentiates types of motivation along a continuum from controlled to autonomous. The theory examines how social, biological, and cultural conditions either enhance or undermine the inherent human capabilities for psychological wellness, engagement and growth, both in general and endeavours and specific domains. Self-Determination theory is particularly based on three universal and psychological needs such as: autonomy, competency and relatedness. 'Autonomy is a form of functioning associated with feeling volitional, congruent and integrated. Autonomy considered as this

sense of voluntariness is, therefore not the same as independence as people can be either autonomously or heteronomously dependent, independent, or interdependent depending on the context and behaviours entailed' (Ryan, et al., 2017).

According to Ryan and Deci, it is important to know the type of human's motivation is it intrinsic or extrinsic. Intrinsic motivation is focused on the issue of autonomy versus control rather than that of competency. It begins with the repeated demonstration that extrinsic rewards can undermine intrinsic motivation (Ryan, et al., 2000).

Intrinsic motivation has arisen as significant phenomena for teacher as natural wellspring of learning and achievement that can be systematically catalysed or undermined by teacher and parent practices (Ryan, et al., 2000). According to one definition, intrinsic motivation is hypothesized to have strong, direct effect on individual self-management. Hypothesized effects occur through increased self-management and its effects. Simultaneously the intrinsic reward that are at the heart of intrinsic motivation have another sequences of effects for retention (figure 3).

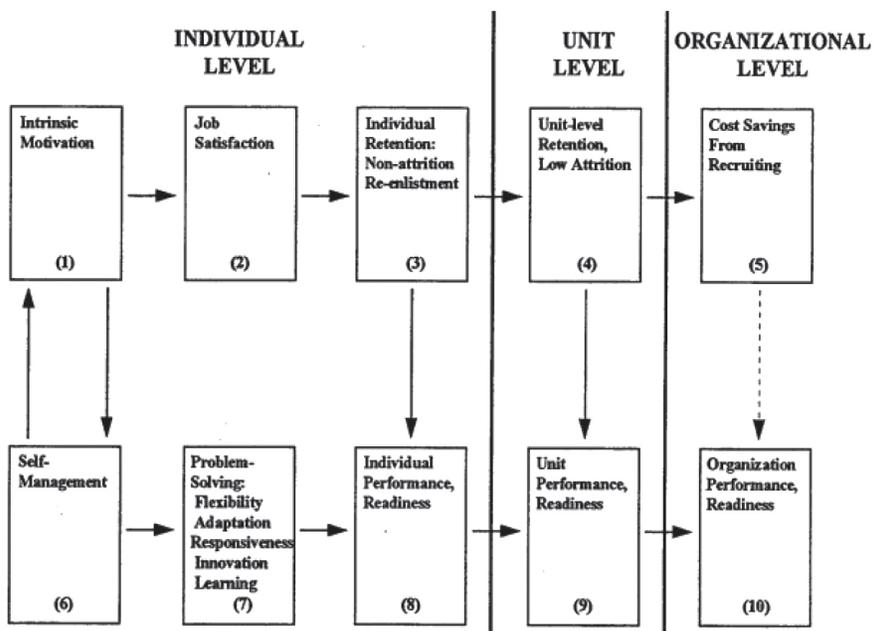


Fig. no. 3: Potential effect of intrinsic motivation in the military (Thomas, 1996)

Further, retention effects are shown to unite with self-management effects to increase performance and readiness. The models clarify the intimate relationship between intrinsic task motivation and self-management. Figure: 3 shows important potential benefits of intrinsic motivation, along with a model of self-management process. Also how intrinsic motivation generates through self-management a set of problems solving behaviors (Thomas, 1996).

Another classification of motivation theories is that of economic or rational motivation. This theory views humans as rational actors who try to maximize self-interest and outcomes yielding the highest economic returns. From the educational point of view the theory refers that 'students select a college major promising a good income (business) rather than something they are interested and passionate about' (Merriam, 2014 p. 149).

3. ANALYSIS OF THEORIES OF APPLICATION AND NEEDS IN GEORGIAN MILITARY EDUCATIONAL SETTINGS

In this chapter practical examples of the needs and motivation theories are discussed, as well as results of empirical research, analysis

of theories of application and needs in National Defence Academy of Georgia in 2018, which are analysed with regard to student learning motivation. Practical applications of the motivational theories outlined in the previous chapter are offered for military educational settings.

3.1. Studying the needs and motives of students' motivation.

Getting a bad result during the peace time education can be a result of lack of knowledge about motivation. For this reason, studying students' motivation gives a good chance to inquire how to support and increase motivation and find practical use for the theories of motivation and needs.

As mentioned above, firstly, it is important to study and evaluate the students' needs and motives, to find out the source of their motivation and after that, commanders, instructors and teachers should apply their effort how to promote student motivation. In terms of evaluation of Georgian military students' motivation to enrol in the military academy the survey done with 434 Bachelor students in February in 2018 at the National Defence Academy of Georgia serves as a basis. The results are depicted in Table 1.

Table 1. What motivates you to enter military institution		
N	Answers	Results
1	My own will to contribute to the country's protection and development	198
2	Enthusiasm	97
3	For being employed and career development	95
4	In reference to family members or other people recommendations	18
5	Serving in the military is prestigious	12
6	Because of high salary	12
7	By chance	2
Total		434

The questionnaire gathers data and helps to outline the reason respondents provided why they join the Academy. According to the results of the survey, it should be mentioned that despite the unemployment and social problems existing in the country the rate of students' financial motivation is not high.

The highest among the possible reasons for joining the Academy is the wish to contribute to their countries' development and protection, and to serve with enthusiasm. It echoes the sense of satisfaction of serving one's country for themselves, their families, a sense of accomplishment in contributing to their country's safety and development. These motives are mostly coming from student's intrinsic motivation and related to their interests and need such as relatedness. This motivation also can

be seen in SDT intrinsic motivation and refers to doing an activity for the inherent satisfaction of the activity itself (Ryan, et al., 2000).

Secondly, the study highlights the motivation for studying in the military educational setting because it provides a good opportunity for a successful career. The students are guaranteed upon completion of their studies to be employed and have an opportunity to develop their military carrier. Economic or rational motivation theory emphasise the motivation deriving from an interest in their future career. Involving people in training or learning process gives a better chance of promotion, or students are motivated to get good grades to avoid the consequences of not doing so (Merrian, 2014 p. 149).

It should be noted that in Georgia Armed Force offers high

quality civilian education programs, where students of military specialties have an opportunity to gain Bachelor and Master's degrees free of charge, which facilitates the development of a military career in the armed forces as well as easy integration and employment in civilian life and using education and experience after leaving the armed forces (Georgia, 2018). These benefits greatly inspire students and motivate them seems to be more in line with economic and rational motivation.

Based on references of family members or other people, learning motive can be explained by influence of external impulses. In this case the age of the young people should be taken into consideration as they

possibly can't analyse the future problems properly, they do not have firm position choosing the university and they rely on the references of adults or reliable people and get them as external impulses of motivation. The survey shows that the tendency of students to learn in military settings is more satisfied with their needs. Requests to satisfaction are related to their internal and external motivation, where teachers, instructors and leaders have the responsibility for lectures and trainings all the time.

In assessing students' motivation for enrolment, an overview of regions is given by the statics of enrolled students in 2017 at National Defence Academy of Georgia in Figure 4.

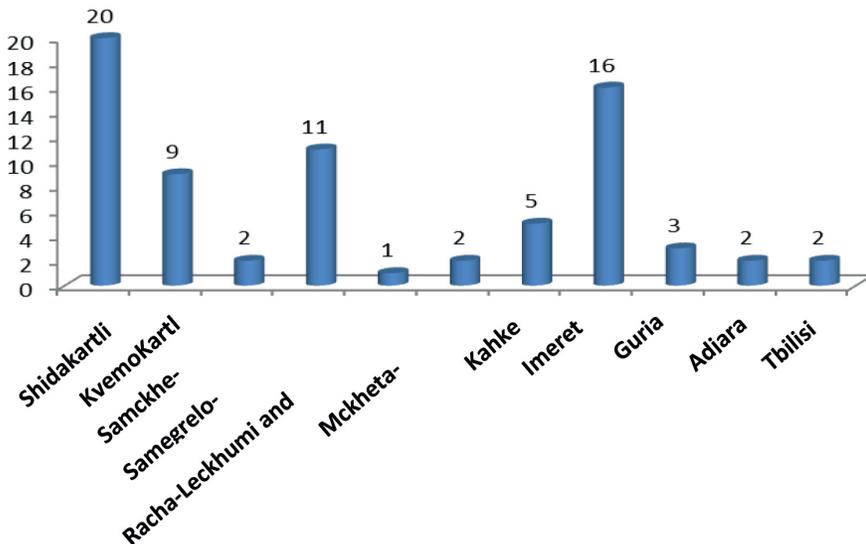


Fig. no. 4: Students enrolled in 2017 at National Defence Academy of Georgia and their motivation by their region origin, Source: Report (Tchitchinadze, 2018)

Figure 4 shows that most students who enrol are from conflict regions. Conflicts in the regions of Abkhazia and South Ossetia left many problems in their wake such as homelessness, unemployment and poverty. Thus the enrolment in the military institution can be associated with those problems. As figure 5 reveals, the willingness to study in the military institutions is very high among IDP (internally displaced people) youth. This result above illustrates the desire of studying in the military institution among the youth. They demonstrate a great need of security and protection of their own homeland.

To draw parallel to the Maslow's theory of needs, it is possible to find commonalities between the first and the second stage of the theory (physiological, and safety and security) and the results of these survey, such as the physiological and safety needs of students. The motivation to study in the military Academy is related to the physiological needs of Maslow's theory. In Georgia young people who have an opportunity to get food, water, accommodation, clothing, education, scholarship and other social benefits are the best motivation for joining to military educational setting and satisfying their needs (Georgia, 2018).

As the results of the survey indicate, students' motivation is

much more relevant to Maslow's theory. These stages indicate the condition of the students' needs and shows that they need help to change their uncomfortable condition and insufficiency. In this process commanders, instructors and teachers should try to find out which level the students' needs are and work on increasing their motivation. It is possible that students' needs will not be fully satisfied according to the theory during the studying process, but to maintain and increase motivation the satisfaction process must be constant and meets the students' needs.

3.2. Expectancy Theory of Motivation

There are many ways that demanding theory help students to motivate them when they get it. In the military education setting student expectation is to understand with how much effort a certain level can be achieved. A person's expectation level determines his belief that a high level of effort can reflect a high level of production (Jones, et al., 2006 p. 217). 'Learning takes place when an individual feels a need, put forth and afford to meet that need, and expectants satisfaction with the result of this' (Rogers, et al., 2010 p. 99). It would be easy to imagine that students' motivation would not be high if they knew that despite

their thorough preparation the final grade would be unsatisfactory (Jones, et al., 2006 p. 217). The opposite would also be true. One of the good examples of it is students' scholarship system at the Georgian National Academy which is connected to the studying and the amount of the scholarship. In the academy, successful students (in case of passing exams with a certain results) get the highest scholarship, according to the rating the next 10% of students get lower scholarship, and the rest 90 % gets twice lower scholarship (Order Ministry of Defense of Georgia 2017). This principle of scholarship distribution is focused on students' motivation and is linked to their expectation. They should be expected to get higher grades and scholarship if they learn stronger. With these principles publicly available, students are well aware of the "cost" and the expected outcome. Another practical example is the process of choosing students' military specialty and the desired military unit to serve, which is also closely connected with the graduation results. However, value of an intrinsically motivated result is higher than that of extrinsically motivated one. Results of the Vansteenkiste, Simons, Lens, Soenens, et al. (2004) study indicated that intrinsic goal framing led to better performance and persistence than did either the extrinsic goal

framing condition (Vansteenkiste, 2006). To sum up, the expectation theory is one of the best ways to help motivate students. The teacher and instructor play a key role in this process to ensure that students need to feel there is a reasonable possibility to achieve success. In addition, they should ensure to motivate internally, proceed from the need of students.

3.3. Using Self-determination theory in the military educational setting

Self-determination Theory offers several ways how to support students learning motivation. Using the self-determination theory in the military education environment is more likely to benefit students, since the theory relates to human needs regardless of age and different levels of study. In SDT's main focus is on intrinsic motivation, self-regulation and well-being (Ryan, et al., 2000). Knowledge of self-determination theory also changes the attitude of the instructor and the teacher in the teaching process. Theoretical knowledge can change the belief of the teacher and the instructor and they can conduct the process of learning in a number of positive and successful ways. As was mentioned in the first chapter, the SDT is based on three universal psychological needs: autonomy, competency and relatedness.

Much SDT work in educational contexts has shown how teacher and parent approaches to motivation can be either controlling or autonomy-supportive (Niemic & Ryan, 2009; Ryan & Deci, 2000b, 2013, 2016). More controlling motivational climates for learning foster external regulation, and the result is more superficial and less transferable learning. In fact, controlled motivation has been shown to predict not only more impoverished learning but also greater behavioral problems and risk of disengagement or dropout. By contrast school climates that support autonomy foster more self-motivation, persistence, and quality of learning. Structure, as a scaffolding and support for competence, is shown in many SDT studies to complement autonomy support. In fact, classroom climates supporting autonomy, providing high structure, and conveying relatedness and inclusion foster personal well-being and feelings of connection to one's school and community' (Ryan, et al., 2017).

Increasing students' autonomy in the military educational settings teachers and instructors may be involved in many practical tasks, since they have the opportunity to find out what they are learning in the process of learning and their prosperity.

General George Paton's words can be considered as one of the

examples of autonomous behaviour ``Never tell people how to do think. Tell them what to do and they will surprise you with their ingenuity`` (Vego, 2009 pp. x-19). These words indicate that if a person has the sense of autonomy, they accomplish the task more effectively. Because of it best known that autonomy is the yearning to direct humans own lives, or in other words to control time, team task and technique (Merrian, 2014 p. 147). Also providing parameters and guidance and some choice within that framework, seems most effective (Svinicki, et al., 2014 p. 141). In the context of a military education, the teacher should give incentives to students to link the learning task with student interest. Teachers can increase the autonomy of students if they give more freedom of action and are more self-directive. For instance, if the teacher gives time to work independently, it will improve their perspective, and will give them a positive feedback over time, this behavior will help the autonomy of the student to ensure that it is interested in challenging interest and involvement in the classroom activity. Therefore, it is possible to say that the student who is given a choice (to do things in their own way) is more motivated.

Competency refers to human's basic need to feel mastery and efficiency. People need to feel able to operate effectively with their

important life contexts (Ryan, et al., 2017) In the military educational settings, the teacher and the instructor can provide an effective and exciting class that will help students get involved in class activities and on the other hand their competence. The topic that is supposed to be available for students is non-military skills or knowledge, but if the teacher and the instructor explain his relevance or why it is used for his military career, it will help them to be more competent. According to the Vansteenkiste and his colleagues `When instructors provide students with a rationale for a learning activity that will help the students understand the value of the learning for themselves, if instructor helps students the long term relevance to themselves, the students are likely more engaged with the learning activities and to perform better in demonstrating their competence` (Vansteenkiste, 2006).

Relatedness is the feeling and belonging with others. It concerns feeling socially connected. Humans feel relatedness most typically when they feel cared for by others. At the same time, relatedness is also about belonging and feeling significant among others (Ryan, et al., 2017). The relatedness in the context of the military educational settings can be enhanced by an instructor or a teacher by performing a supporting role. During a specific lesson when the student is involved in a difficult

task, the teacher should give guidance to teamwork, foster cooperation with other students to overcome difficulties.

4. CONCLUSIONS

Taking into consideration that military educational setting encompasses teaching and learning motivation to human resource which is one of the key issues for achieving higher education level.

Student's motivation to learn can be reached many different ways, among them using the Maslow's Needs, Ryan and Deci's Self-Determination Theory and Vroom's Theory of Expectancy. Knowledge how students are motivated and what their needs are, plays an important role, how to teach effectively. The teacher and the instructor should take into consideration wide variety of needs of students. They should provide learning process that the student's needs are satisfied to become a motivator of their behaviour, besides involve them class activity with interest that achieve a high academic outcome.

Having awareness of source, type and level of motivation of students in the learning process helps determine the teacher's, instructors or commanders to correct external motives and impulses correctly, but the stimulation and intensification of internal

motivation by the implementation of self-determination theory is vital importance. The practical examples given above concerning support autonomy, competency and relatedness indicate that intrinsic motivation is very important in the context of military settings for the student, but the external motives are also a vital factor for the motivation of each student to raise motivation. Self-determination theory that distinguishes internal and external motivation is focused on human activities on what it is doing with interest and pleasure, and external motivation points to doing something because it leads to a specific outcome (Ryan, et al., 2017). Hence the self-determination theory understanding and the correct implementation will bring success in military settings. This implies the engagement of the instructor and the teacher in the learning process, which increases the three basic need of intrinsic motivation of the students.

The teacher should offer the student an opportunity to work autonomously, to give students a chance to talk about various events that are related to military issues, which provide students with greater competence. The teacher should always take care to create an interactive group of people with thoughts and discussions that will eventually lead to the desired results.

They also need to help students in order to increase their level of relatedness. This fosters a climate of trust and appeals to both intrinsically and extrinsically motivated students. One of the important roles of teachers and instructors may be the learning process which is related to the expectations of the students to explain to them that the courses are attended by this is a relevant valuable for their future careers.

REFERENCES

- [1] Brown, Lios V. 2007. Psychology of Motivation. New York : ova Science Publishers, Inc, 2007.
- [2] Dubrin, Andrew J. 2007. Leadsшип. New York : Houhhton Mifflin Company, 2007. p. 292.
- [3] Edvalda, et al. 2013. Self-Determination Theory. An Analysis of Studentn motivation In an Accounting Degree Program. 2013, 1808-057x.
- [4] Expectancy Theory of Motivation. Lunenburg, Fred C. 2011. Motivating by Altering Expectations, San Francisco: Sam Houston State University, 2011, Vol. 15.
- [5] Georgia, National Defence Academy of. 2018. Eta. Eta Edu. [Online] 2018. [Cited: March 30, 2019.] <https://eta.edu.ge/en/page/10/baccalaureate>.
- [6] Jones, Gareth R. and George, Jennifer M. 2006. Essentials of

- Contemporary Management. Tbilisi: Zurab Zhvania Georgian Institute of Public Affairs, 2006.
- [7] Maslow, A. H. 1943. Reserch History. researchhistory. [Online] Reserch History, June 16, 1943. [Cited: March 30, 2019.] <http://www.researchhistory.org/2012/06/16/maslows-hierarchy-of-needs/>.
- [8] Merrian, sharan b. 2014. Adult Learning. San francisco : Jossey-Bass, 2014.
- [9] Rogers, Alan and Horrocks, Naomi. 2010. Teaching Adults. Hong Kong: The McGraw Hill Companies, 2010.
- [10] Ryan, Edward L. and Deci, Richard M. 2015. Self-Determination Theory . International Encyclopedia of the Social & Behavioral Sciences. 2nd edition, 2015, Vol. 11.
- [11] Ryan, Richard M and Deci, Edward L. 2000. Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. Contemporary Educational Psychology. 2000, pp. 57-67.
- [12] Ryan, Richard M. and Deci, Edward L. 2017. Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness. s.l. : Guilford Publications, 2017.
- [13] Ryan, Richard, M and and Deci, Edward, L. 2000. Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. American Psychologist. January 2000, January 2000, Vol. 55, 1, 68-78.
- [14] Shublazde, Giorgi, Mgebrishvili, Babulia and Tsotskolauri, Picria. 2011. Foundations of Management. Tbilisi : Universal, 2011.
- [15] Svinicki, Marilla D. and Mckeachie, Wilbert J. 2014. Teaching Tips Strategies, Reserch, and Theory for Collage and University Teachers. Wadsworth : Wadsworth Genage Learning, 2014.
- [16] Tchitchinadze, LtCol Koba. 2018. Permission for survey. Tbilisi : LtCol Koba Tchitchinadze, 2018.
- [17] Thomas, Kenneth Wayne. 1996. Calhoun. Monterey : Dudl, 1996.
- [18] Vansteenkiste, Maarten. 2006. Intrinsic Versus Extrinsic Goal Contents in Self-Determination Theory. EDUCATIONAL PSYCHOLOGIST. 4, 2006.
- [19] Vego, Milan n. 2009. Join Operation Warfare. Washington : Washington US Naval War Collage, 2009.