

RESEARCH IN STUDENTS' VALUES ORIENTATION AND MOTIVATION

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Abstract. The motivation system of human being is described exclusively by wide sphere, including automatically realized attitudes as well as current actual aspirations and idealistic views. The object of given research is the motivation of students of the Riga Technical University. The qualitative research was carried out using the method of student testing at the 2010. Values orientation is researched using the theory of needs by Maslow. The level of motivation is determined by theory of expectations by V. Vroom. The influence of factors on the level of motivation is defined with the help of the method of consequent substitutions. The authors in their model consider the education as the sum of three partials: special knowledge, practical skills and general-theoretical training. Students with the high grade point average demonstrate higher general level of motivation during university studies. The discrepancy in the level of motivation mostly is stipulated by differences in expectations to get a good education. The main factor which reduces the level of motivation in students with high level of pre-tertiary training is insufficient certainty to get good practical skills but the students with relatively low success in the secondary school are more concerned how to get good general-theoretical knowledge. The results of the given research can be used in planning of study processes with the aim to create optimal study conditions which stimulate the involvement of students depending on their individual characteristics.

Keywords: motivation, students' needs, study process.

Introduction

Changes in higher education environment, increasing requirements for studies quality, the students' changeable expectation for learning contents and methods, increasing higher education internationalization and globalization stimulates finding ways how to evaluate and increase the quality of studies (Katiliute 2010). In the current atmosphere of the higher education student have become "customers" and therefore their views must be heard and acted upon¹.

One of the most important prerequisites of education quality improvement is the student interest to educate their self, student motivation to study. Motivation is an internal state or condition that serves to activate behavior and give it direction. Modern knowledge management views motivation as a complex of value orientations, attitudes and goal striving tendencies. Motivation has been called the "neglected" heart of teaching. All teachers' activities are filtered through our students' motivation. Without student motivation there is no pulse, there is no life in the class². Studies on motivation are focused on different tendencies: goal approach, intrinsic-extrinsic motivation, interest approach³. Conceptual categorization of goals propose goals oriented toward learning, toward achievement and toward achievement avoidance⁴.

Motivation provides a source of energy that is responsible for why learners decide to make an effort, how long they are willing sustain an activity, how hard they are g to pursue it. The term "Motivation to

¹Katiliute, E.(2010). Student's perception of the quality of studies: differences between the students according to their academic performance. *Economics and Management*: 2010.15, 574-579.

²Firestone, J. (2003). Key issues in the new knowledge management (pp.23-29). Library of Congress: Cataloging in publication data.

³Murphy, P. K., & Alexander, P. A. (2000). A motivated exploration of motivation terminology. *Contemporary Educational Psychology*, 25, 3-53.

⁴Urduan, T. C., Anderman, L.H., Anderman, E., & Roeser, R. (1998). The development and validation scales assessing students' achievement goal orientation. *Contemporary Educational Psychology*, 23, 113-131.

learn” has a slightly different meaning. It is defined by one author as the meaning fullness, value and benefits of academic tasks to the learner-regardless of whether or not they are intrinsically interesting⁵.

Another note, that motivation to learn is characterized by long term quality involvement in learning and commitment to the process of learning⁶. Motivation to learn is a competence acquired through general experience, but stimulated most directly through modeling, communication of expectations and direct instruction of socialization by significant others⁷.

The challenge of improving motivation is a high priority all over the world. Many professors note the student motivation has fallen in recent years. This problem is urgent for Latvia too. Latvian University rector professor Martins Auzinsh said, that the main problem for Latvian students is not the quality of pre-university education, but unwillingness to work hard⁸.

Two problems are solved in the given research: which are their values, orientations of students and which factors affect the level of motivation.

The research object is the motivation of students of Riga Technical University. **The research aim** is to study student motivation to learn and the orientation of their values. **Methods:** literature review, focus group interview, data descriptive and factorial analysis.

Research was done on the basis of testing in which participated 560 students of Riga Technical University. Questionnaires were conducted during the period of 2009-2010.

1. Determination of students' needs on the base of Maslow theory

It must be understood that individuals are motivated through variety of needs. Some people are highly motivated by money, other by power, and other by recognition. Maslow posited a hierarchy of human needs based on two groups: deficiency needs and growth needs.

Deficiency needs include: a) physiological: hunger, thirst, bodily comfort; b) safety (security); c) belongingness and love; d) esteem to achieve, gain recognition. Growth need is a need of self realization. According to Maslow, an individual is ready to act upon the growth need only if the deficiency needs are met. Research of students' requirements on the base of Maslow's theory can bring an insight on which information students are eager to get in dependence of the level of priority needs⁹. Maslow theory assumes that 90% of motivation depends on individual, however according to fifty-fifty rule theory, 50% depends on individual and 50% on surrounding environment¹⁰. The interrelation of Maslow's theory and getting of desirable information is described by Norwood¹¹.

Norwood proposes that according to Maslow's theory individuals on different levels of needs seek a different kind of information. Students seek coping information on physiological level of needs, helping information-on safety level, enlightening information –on belongingness level, empowering information-on esteem level and edifying information-on self realization level of needs.

Students' needs were researched using statistical grouping methodology. Statistical average value was used as an instrument to measure level of needs. The most significant needs turned out to be the need to defend, which is explained by the desire of the students to have stable and constant job as a guarantee of being defended. On this basis students strive to get information which, in their opinion, can help to get a good job. Studies conducted show that 90 % of students consider as the priority the specialty subjects and much less attention is devoted to the general education subjects. The second in the meaning is the need of esteem. Students want to gain a certain social status, to be recognized. The aspiration to be recognized is connected with the interest toward the subjects of psychology and management theory (for the definite group of students). Social and material needs are less important, than previous two needs. The least need, as it turns out, is the need of self-realization.

⁵ Marshall, H.H. (1988). In pursuit of learning-oriented classrooms. *Teaching and Teacher Education*, 4, 85-89.

⁶ Ames, C. (1987). The Enhancement of student motivation In *advances in motivation and achievement*, Vol. 5: *Enhancing Motivation*, 123-148. Connecticut: Academic Press.

⁷ Brophy, J.E., (1987). Socializing students to learn. In *advances in motivation and achievements*, Vol.5 *Enhancing Motivation* (pp. 181-210). Connecticut: Academic Press.

⁸ Auzinsh, M. (2011). Latvia University 69.scientific conference “Higher education and science as the resource of Latvia development”. www.delfi.lv/archive/article.php?id=36598253

⁹ Maslow, A.H. (1970). *Motivation and personality*. New York: Harper and Row.

¹⁰ Adair, J. (2006). *Leadership and Motivation; the fifty-fifty rule and the key principles of motivating others* (pp.47-54). New York: Kogan Page.

¹¹ Norwood, G. (1999). Maslow's hierarchy of needs. *The Truth Vector* (Part1). www.deepermind.com/20maslow.

Testing participants were offered to define the hierarchy of needs for student, who has an “ideal” situation (guaranteed job with high enough income). The comparison of real priorities with ideal is presented below (Figure 1).

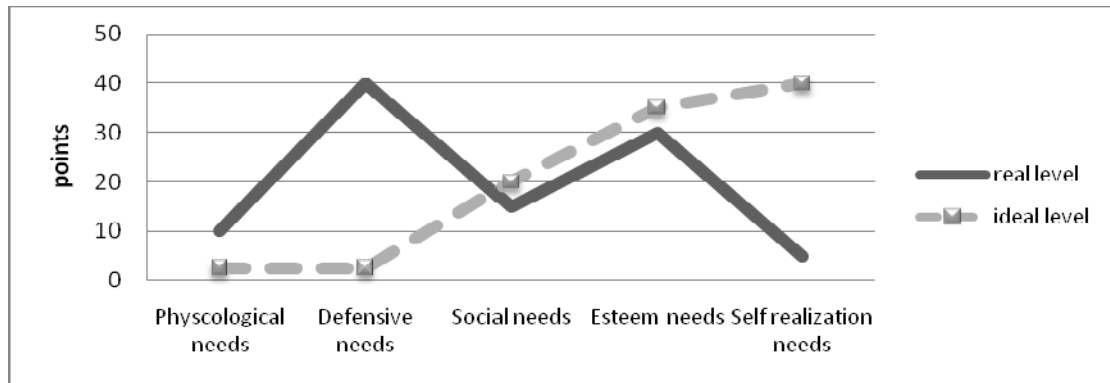


Figure 1. The students' real and ideal level of needs

As we can see above, the need of self-realization is the most urgent in ideal conditions.

Maslow recognized that not all personalities followed his proposed hierarchy. While a variety of personality dimensions might be considered as related to motivational needs, one of the most often cited is that of introversion and extroversion. Using Alderfer's Hierarchy of Motivational Needs¹², Maslow's theory of needs can be modified by dividing the needs to 3 levels: growth, relatedness and existence, each with an introverted and extroverted component. This organization suggests there may be two aspects of each set of needs. Different personalities might relate more to one dimension than other.

Using data presented in Figure 1 the results of the modification of Maslow's needs levels into the reorganized Maslows and Alderfer Hierarchies model are presented in table 1.

Table 1. Modification of needs levels of students

Level		Introversion		Extroversion	
Definition	Points	Definition	Points	Definition	Points
Relatedness	45	Belongingness	15	Esteem	30
Existence	50	Physiological	10	Security	40
Growth	5	Development of competencies		Transcendence, relationship to the unknown, unknowable	

Given the results presented in the table 1, tested students belong to the extroverts group. The growth need which is very insignificant in comparison with the offered model as the extroverts is expressed not in the aspiration to develop competence, but in the desire to help others find self-fulfillment and realize their potential.

2. Determination of the motivation level on the basis of the expectancy theory

Expectancy theory uses one of the cognitive approaches to study motivation¹³ and proposes the following equation:

$$\text{Motivation} = \text{Perceived probability of Success (Expectancy)} \times \text{Connection of Success and Reward (Instrumentality)} \times \text{Value of Obtaining Goal (Value)}.$$

If an individual doesn't believe that he can reach desired level of achievement, the outcome becomes less important to him, also if individual does not value the outcome his motivation will be lower even if he is confident that outcome can be achieved at the desired level¹⁴.

¹² Alderfer, C. (1972). Existence, relatedness and grows. New York: Free Press.

¹³ Vroom, V. (1964). Work and motivation. New York: Willey.

¹⁴ Herold, D.M., & Fedor, D.B. (2008). The way you lead change (pp.103-122). Stanford University Press.

According to this formula a low value in one factor will result in a low value of motivation. That is, if an individual doesn't believe he can be successful at a task or he does not see the connection between his activity and success or the individual does not value the results of success, then the probability is lowered that individual will engage in the required learning activity. From the perspective of this theory all three variables must be high in order for motivation to be high.

By using the expectancy theory of V.Vroom the analysis of students' needs level is conducted. To evaluate the level of motivation of students the equation of expectancy theory is offered to use, where the main emphasis is made on the desire to get a good job.

Students' expectancy in the offered model is connected with the hope of a good education. Education is composed of three components: general theoretical training, specific knowledge and practical training. The possibility to get a good job is viewed as the reward and as axiological equivalent of such a reward is the importance of a good job for a student.

The motivation level can be described with help of the given equalization:

$$M = (GE + PK + PT) * D * I \quad (1)$$

Where:

M - motivation level, points;

GE - the expectancy to get a good general education, points;

PK - the expectancy to get a good professional knowledge, points;

PT - the expectancy to get good practical training, points;

D - determination that the good education guarantees obtaining a good job, points;

I - the importance to obtain a good job, points.

According to the equation, the higher his or her expectation is to obtain a good education, obtain a good job and a position of significance, then higher the student motivation should be. The values of the above mentioned characteristics were defined in points, where "0" means zero assurance, "1" is doubts about the perspective results, and "2" is full assurance of a positive result.

With aim of examining the insufficient motivation of students it is useful to determine the influence of certain factors on the whole level of motivation. In accordance with offered model, five factors influence the level of motivation. They are: the assurance of obtaining a good education (general-theoretic, special knowledge, practical training), the hope of getting a good job, and the significance of a good job.

The influence of factors is defined with the help of the determinate factorial analysis method. Method of absolute distinctions is used as an instrument of research. The model for factorial analysis is created by authors and presented in equalization:

$$M = \left(\sum_{i=0}^2 R_{ge} * i + \sum_{i=0}^2 R_{pk} * i + \sum_{i=0}^2 R_{pt} * i \right) * \sum_{i=0}^2 R_d * i * \sum_{i=0}^2 R_j * i \quad (2)$$

Where:

M - the level of motivation;

R_{ge} - the amount of students who gave evaluation from "0" to "2" of the possibility of getting good general educational knowledge;

R_{pk} - the amount of students who gave evaluation from "0" to "2" of the possibility of getting good professional knowledge;

R_{pt} - the amount of students who gave evaluation from "0" to "2" of a good practical training;

R_d - the amount of students who gave evaluation from "0" to "2" of the possibility of getting a good job;

R_j - the amount of students who gave evaluation from "0" to "2" of the significance of obtaining a good job.

The level of motivation and the impact of factors are presented in the table 2. The impact of factors is defined as a correlation:

$$F = (\Delta M_f : \Delta M) * 100\%, \quad (3)$$

Where:

F - cutting of the level of motivation, %;

ΔM_f - difference between the real level of motivation and maximally possible by factor;

M - difference between real and maximally possible general level of motivation.

Table 2. Factors which cause the cutting of the motivational level, %

Years of study	General educational knowledge	Specific knowledge	Practical training	Job	Importance of a good job	General level of motivation
1.year	8	12	32	48	0	80
2.year	30	0	40	30	0	94
3.year	17	8	25	50	0	77
4.year	10	7	50	32	1	64

The data in table 2 shows that general level of motivation decreases from year to year. The study of students' needs and factors which influence the level of motivation revealed that the most expressed frustration of the students was the possibility to get a good job. The second important factor which brings down motivation is relatively low expectations to receive a good practical training. At the same time the expectations of students that theoretical training as general educational as well as special will be good are relatively high. Taking into account the possibility to get a good job as the main motivating factor on the base of testing the main characteristic are defined from the point of view of students on the notion "good job". The determination of what is considered to be a "good job" was done using methodology of criteria ranging.

The results of ranging of criteria which characterize the notion "good job" re presented below (Figure 2).

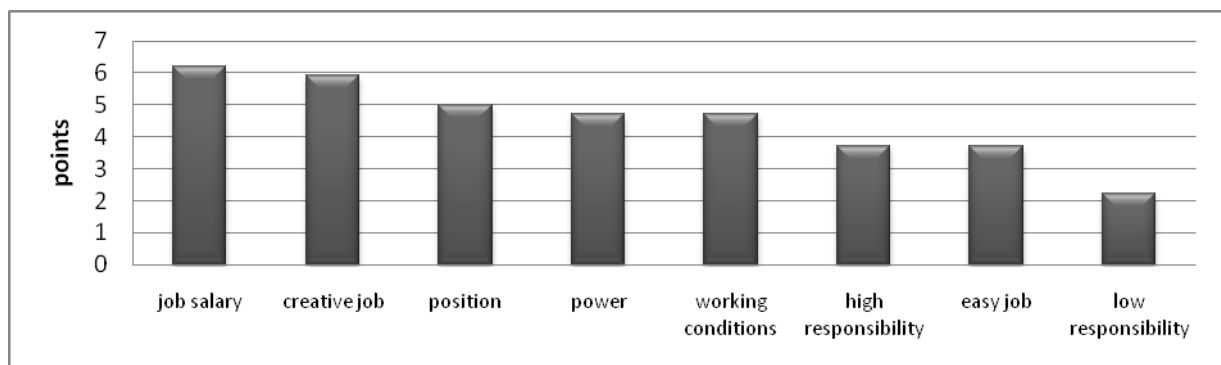


Figure 2. Criteria of the notion "good job"

The results of student testing show that first place goes to salary; the next important things are the creative nature of the job, and the position title itself. Students have less interest in responsibility and power. Analysis of the correlation between pre-university training and motivation level shows that students with the high grade point average demonstrate higher general level of motivation during university studies. The discrepancy in the level of motivation mostly is evidenced by differences in expectations to get a good education. The main factor which reduces the level of motivation in students with high level of pre-tertiary training is insufficient certainty to receive good practical skills but the students with relatively low level in the secondary school are more concerned how to receive good general-theoretical knowledge.

Conclusions

Results of the research discovered the dominating needs of students; they are the need for safety and the need for recognition. In the framework of needs determination in accordance with the students' perceptions the diagram of the needs of "ideal" student is created. This chart shows that in the ideal condition the most actual problem become the need of self-realisation and recognition. Using the combination of models of Maslow and Alderfer students by their nature can be viewed as extraverts and this defines the features of their needs of self – aspiration to transcendence. This has to define to a certain degree the choice of teaching method. Research of motivation level on the base of expectancy theory of Vroom showed that the highest level of motivation is observed during first years of studying. The main factors which lower the level of motivation are diffidence in the future to get a good job and a good practical training. Special attention is devo-

ted to the research of the impact of the pre-tertiary training on the motivation. The research revealed that the general level of motivation depends on the level of knowledge, gained in secondary school. Students with the high grade point average demonstrate higher level of motivation at the university. The results of the given research can be used in planning of study processes with the aim to create optimal study conditions which stimulate the involvement of students depending on their individual characteristics.

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