Increasing Students' Motivation to Learn at Tertiary Educational Institutions

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Received: June 10, 2020 Accepted: August 3, 2020 Online Published: August 7, 2020

doi:10.5430/ijhe.v9n7p166 URL: https://doi.org/10.5430/ijhe.v9n7p166

Abstract

The article is devoted to the study of the main purpose and features of increasing the students' educational motivation atthe tertiary educational institution (TEI) in times of urgent need for a total overhaul of the educational paradigm and principles of teaching not only at higher educational establishment but also in the Ukrainian education system as a whole. During the investigation the methods of interdisciplinary approach, system analysis, social-cultural method, social-activity and concrete-historical approach have been applied. An important practical conclusion from the results obtained lies in the fact that the effectiveness of the educational process largely depends on the strategies of educational behavior, used by students. Accordingly, educators (and parents) should not only deliver educational material, but also teach students more effective ways and techniques for capturing it. For instance, the educator may recommend students to make a plan (or scheme) of the material studied or lend assistance to students in developing an individual plan for its mastering. Knowledge about the formation peculiarities of educational motivation at the tertiary educational institutions and personality's value systems in the process of its professionalization can be used in the educational process to optimize the educational activities of students and improve training of specialists. The obtained results make it possible to clarify the subjective criteria for the effectiveness of students' learning. Knowledge about the content of the value system of the modern student's personality and its manifestation in the motivation of educational activity is of practical importance both in terms of self-knowledge and human development, and in terms of organizing professional university and postgraduate training. In the course of investigationit was possible to clarify and specify the theoretical ideas about motivation as a structural-level education, torepresentideas about the values that reflect the attitude to activity as a tool of meeting individual development needs, and their impact on the motivation of educational activities. The motives' conceptof personal educational activity and values of students at tertiary educational institutions as psychological parameters of professional activity, requiring correlation with life objectives, have been highlighted.

Keywords: motivation, academic motivation,tertiary educational institution (TEI), educational motivation, motivational objectives, the purpose of students' motivation

1. Introduction

High rates of transformations, taking place in the world, increasing globalization, inevitably intensified integration of the national community into global processes, rapid technological progress entail a growing need for highly qualified, self-motivatedand professionally competent specialists. The competitiveness of young professionals with higher education in the labor market has been determined not only by the amount of professional knowledge and skills acquired, but also by personal characteristics such as creative thinking, mobility in decision-making, readiness

for self-determination in the situation of choice, the ability to justify the decision and assess its rationality, the ability to design their activities, the desire for self-education and self-improvement (Tsukerman & Venher, 2010).

The abovementioned generates the emergence of an urgent need to rethink the purpose of vocational education, improving the organization of the learning process. Responsibility for the organization of the learning process, which provideshigh-quality professional training, intellectual and personal development of students,lie with tertiary educational institutions. Learning activities include a motivational component that covers cognitive needs, motives and meanings of learning. Under the educational process, students have a need for self-improvement, self-realization and self-expression, the relationship between teacher and students, as well as between students themselves have a positive impact.

In modern psychology of education, many studies are devoted to the study of the influence of various psychological factors on the achievement of high academic results of students of secondary and tertiary educational institutions. Traditionally, the basic attention is paid to the study of educational motives, which, as the results of numerous studies show, are significant predictors (significators) of various academic achievements. However, not all motives make an equal positive contribution to achieving high academic results (Chapell et al., 2005).

Investigations on the role of motives in educational activities reveal that internal types of motives (the motiveof knowledge development (cognitive), the motive of achievement and self-development) are the most productive forms of students' motivation (Shcheblanova, 2013). Moreover, a number of studies have shown that high rates of internal types of motives act as a hallmark of academically successful students, manifesting in a special attitude to the learning process as an opportunity to develop the students' skills,increase competence and proficiency, learn new things and strive to achieve perfection (best results) in the implementation of educational activities.

According to the theoretical provisions of the motivation model's need, the internal types of motives are of an active nature: the occurrence and functioning of an activity is determined by its process. Herewith, the individual has a perception similar to the state of the "flow" described by Csikszentmihalyi (2017): a human personalityis completely dissolved in the activity, he neither feels and nor realizes himself separately from it - the process itself, the activity itself seems to lead and control human actions against the background of positive emotional experiences.

The functioning of internal motivation takes place when the educator supports the cognitive activity of students, rather than trying to manage them, provides feedback on the quality of the work performed by them and promotes the development of students' reflection.It should be noted that the representatives of the humanistic direction in psychology, as well as the authors of developmental learning theory, have pointed out the increase in the effectiveness of education at tertiary educational institutions during implementation of these measures (Dettmers, Trautwein, Lüdtke, Kunter & Baumert, 2010).

In turn, the efficiency of motives' external types is actively discussed nowadays. If the internal motivation is manifested in the desire of the individual to perform the activity, because it is interesting to him in itself, and the process of its implementation brings him pleasure,then the external motivation motivates the individual to perform activities at the expense of external goals, not directly related to the content of the activities.

However, external motivation is a heterogeneous formation. The authors of the self-determinationtheory distinguish four types of external motivation (external, introjectional, identified and integrated), which differ in the degree of satisfaction / frustration of the need for autonomy. The results of studies conducted in the framework of the self-determination theory show that autonomous forms of external motivation have a positive effect on the educational process and contribute to academic achievement. The attention should be drawnto the fact that the integrated type of regulation has not been studied empirically due to the difficulties of its operationalization.

However, it is obvious that neither internal nor external motivation are direct determinants of high academic achievement, but influence on them indirectly through thestudents' use of different strategies of educational behavior. This article is an attempt to explore productive and unproductive motivation strategies.

Achieving the target goal involves solving the following research **problems**:

1. To analyze the influence of factors that have a direct impact on themotivation analysis to students' learning at tertiary educational institutions.

2. To conduct an analysis of research motives.

3. To identify the main directions of modern pedagogy and psychology in the field of increasing motivation to students' learning at tertiary educational institutions.

4. To outline a promising field of unresolved issues and further research on the formation of motives and stimulating motivation to students' learning at tertiary educational institutions.

The basic hypothesis of the study lies in the organization of motivation's management of students' educational activities with the help of modern psychological and pedagogical technologies, which will achieve the necessary level of knowledge, skills,and will also contribute to the formation of professional knowledge, skills and abilities necessary for the implementation of the main types of professional activity (production and technological, organizational and managerial,scientific and research).

Historical investigations on the problem of motivationoriginate from natural sciences to the humanitarian models (social-cultural and anthropological). Let's consider these models in more detail.

The study of motivation as an element of educational activities, due to the goals and organization of learning, has been fully reflected in the works of Day, Hanson, Maltby, Proctor and Wood (2018), Buttaro and King (2001), Anwer, Saleem and Mehfooz (2018), Dunn and Kennedy (2019), Burgess and Ramsey-Stewart (2014), Jimenez, Villegas and Panduro (2019). Motivation as a subjective-personal characteristic has been represented in the investigations of Dettmers et al. (2010).

Motivation as a component of the psychological structure of activity has been successfully studied by Gordeeva, Osin, Kuz'menko, Leont'ev and Ryzhova (2013) on the basis of the principles of the system-genetic approach within the problems of professional development. According to the approach, motivation acts as a complex system of mental processes, in which various elements and their interaction are highlighted.

The initial theoretical models of motivation are the models of Freud and MacDougal, the early behaviorists (behavioral concept of motivation) Gizhitsky (2014), Kim, Hwang and Kwon (2016), Kunanitthaworn et al. (2018), Lee, Hoornbeek, Oh, Hallam (2019), Ludeke and Zuniga (2017), Mak van der Vossen, Teherani, van Mook, Croiset and Kusurkar (2018). Such models were created on a fundamentally natural (biological) basis of human nature, so their appearance belongs to the naturalistic period, when the psychology of motivation did not affect the context of personality. Topics about nature and the content of the motive concept and motivation were considered as the basic research issues until the 1930s. These investigations completely coincided with issues about human nature, and motivational manifestations were considered as a consequence of this nature and interpreted in terms of the biological component.

At this second, anthropological, stage, the psychology of motivation almost coincides with the psychology of personality. Moreover, the basic content of most theories of personality is the model of motivation, driving forces of behavior and development (theories of Gizhitsky (2014), Meguid and Khalil (2017), Tang et al. (2019), Wenzel, Krause and Vogel (2019), Wilkinson, Wells and Bushnell (2007)).

Duckworth, Kirby, Tsukayama, Berstein and Ericsson (2011) emphasize that the psychology of motivation is also characterized by the fact, according to which the problems of choice, freedom, will, control over motivation, life objectives, prospects for the future, self-regulation come to the fore. This model of motivation shows that there are cognitive processes, mediating the mechanisms of motivation, shifting to consciousness and personality in general.

The conducted analysis of the literature makes it possible to conclude that motivation is not studied in all aspectsas a reflection of subjectiveactivators. Thus, it is necessary to clarify the content of motivation depending on the values of the personality. Values, representing individual needs and orientation, characterize the personal meaning of activity; they act as an important criterion for becoming a professional (Lee et al., 2019). The study of motivation in the subjective aspect will avoid a simplified understanding of the conditions of professional development, clarify the criteria for professional development of the personality and the level of professionalism of graduates of pedagogical universities concerning the requirements of the teaching profession.

2. Methods and Materials

To diagnose the internal and external motivation of educational activities the Scale of academic motivation, developed by Gordeeva, Osin and Sychev (2014) has been used. The questionnaire includes 36 statements that form 8 scales: three internal motives (the motive of knowledge development (cognitive), achievement and self-development), two personal external motives (self-esteem), two interpersonal external motives (external regulation and the motive of parents' respect), as well as a scale of a-motivation.

Cognitive motive determines educational activity due to interest in its immediate content; it is manifested in a state of fascination with the cognitionprocess. The motive of achievement is manifested in the desire to solve complex problems and achievecomplicated goals. The motive of self-development centers around the desire to develop

oneself, one's skills and abilities in the learning process. The motive of self-esteem is manifested in the desire to feel like a significant, respected person at the tertiary educational institution.

Introjectional regulation determines activity due to a sense of duty, guilt and shame. External regulation is manifested in the desire to learn in order to avoid problems (criticism of parents and teachers, poor grades), arising from the external environment (Altermatt, 2017). The motive of parents' respect is manifested in the desire of students todeserve parental respect (recognition) by achieving high results in educational activities. The scale of a-motivation includes statements that reflect the student's indifference to the learning process and a sense of its absurdity.

To diagnose strategies of educational behavior, the scale of educational perseverance has been used, which is a modified version of the questionnaire of perseverance and persistence (Duckworth et al., 2011). In order to find out how much time students spend on homework, they are asked to answer the question: "How long do you usually do homework at home? It was necessary to choose the answer from 6 options: 30 minutes, 1 hour, 1,5 hour, 2 hours, 3 hours, more than 3 hours.

To diagnose dishonest behavior, a scale of educational deception has been used, which includes five statements that reflect various manifestations of dishonest behavior (Gizhitsky, 2014).

To discover the connection between motifs and learning behavior strategies, a correlation analysis based on Pearson's correlation was used to help measure the tightness of the relationship between variables. The calculation of the Pearson coefficient (linear correlation coefficient) was carried out using the formula (1):

$$r_{\rho,xk,yk} = \frac{\sum(x_k - M_x)(y_k - M_y)}{\sqrt{\sum(x_k - M_x)^2 \sum(y_k - M_y)^2}}$$

$$M_x = \frac{1}{n}\sum_{k=1}^{n} x_k, \quad (1)$$

$$M_y = \frac{1}{n}\sum_{k=1}^{n} y_k.$$

Pearson's correlation coefficient is an indicator of the correlation (linear dependence) between two variables x_k, y_k, which takes values from -1 to +1 inclusive. A value of +1 means that the relationship between x_k, y_k is linear and reflects the growth of Y with increasing X. A value of -1 - reflects the decrease in Y with increasing X. If the Pearson correlation coefficient is equal to 0, then there is no linear correlation between the variables.

3. Results

1. Correlations of learning behavior strategies, represented in Table 1 of Duckworth, Peterson, Matthews and Kelly (2007), show that the more interest students feel in the learning process, the more they perceive learning as an opportunity to gain interesting knowledge and seek to increase competence (skill), the more effort and time they devote to educational activities and the less they resort to educational deception (plagiarism, use of cheat sheets) (Altermatt, 2017).

Table 1. Correlations of learning behavior strategies

	N	1	2	3	4	5	6	7	8	9	10	11	12
1.The motive of knowledge development	396	1											
2. Motive of achievements	396	,78**	1										
3. Motive of self-development	396	,73**	,67**	1									
4. Motive of self-esteem	396	,45**	,38**	,72**	1								
5. Introjectional regulation	396	,12*	0,05	,33**	,59**	1							
6. External regulation	396	-,25**	-,22**	0,002	,22**	,52**	1						
7. Motive of parents' respect	396	-0,03	-0,01	,23**	,47**	,51**	,62**	1					
8. A-motivation	396	-,48**	-,35**	-,42**	-,33**	-,13**	,24**	0,1	1				
9. Persistence in learning	396	,38**	,39**	,41**	,27**	,11*	-,13*	0,1	-,22**	1			
10. Time for doing home-work	348	,19**	,23**	,25**	,23**	0,1	-,14**	-0,01	-,20**	,17**	1		
11. Educational deception	295	-,35**	-,39**	-,21**	-,12*	-0,1	,27**	0,05	,33**	-,30**	-,20**	1	
12. Academic rating	363	,34**	,29**	,28**	,21**	,14**	-,11*	-,11*	-,16**	,29**	,15**	-,30**	1
M		3,55	3,23	3,47	3,34	3,25	2,96	2,50	1,77	3,60	3,46	3,2	4,01
SD		.99	1.07	.99	1.11	.98	1.05	.98	.88	.73	1.69	.96	.54
Reliability of scales (α Cronbach)		.90	.90	.84	.85	.70	.73	.89	.84	.80		.75	

Note. M - average; SD - standard deviation.Significance of coefficients: * - p <.05; ** - p <.01

Resource: discovered in the framework of the study of Gordeeva et al., (2014)

It is of interest to note that the motive of self-esteem is also significantly connected with constructive behavioral strategies. Accordingly, the more students feel proud of their academic achievements, the higher their perseverance in learning the material is, and the more time they spend doing homework. The demonstration of high perseverance and dedication of more time for doing homework by students with high self-esteem motives is due to the fact that they perceive academic achievement as proof of their own significance and value.

The lack of connections between educational deception and introjectional regulation shows that its use will depend on what exactly makes high school students feel a sense of duty (Gizhitsky, 2014). Accordingly, if they believe that

it is their duty to get high grades, then probably learning deception will be a more acceptable way of learning for them than for students, who consider themselves obliged to acquire knowledge and skills.

The links of external interpersonal types of motives with strategies of educational behavior are different. External regulation has stronger connections; this type is positively connected with educational deception, and negatively - with persistence and with time of homework performance. Accordingly, if students perceive learning activities to a greater extent as a tool of achieving external (in relation to it) results (praise), they will show less effort in learning activities and spend less time on homeworkperformance (Mak van der Vossen et al., 2018). Herewith, they will be more focused on finding easy ways to achieve the desired, such as the use of cheat sheets or plagiarism.

Psychological processes in the learning are activated by internal and external impulses, that's why motivation is divided into internal and external, but in everyday life it is not always easy to separate them. Students with intrinsic motivation are happy to participate in learning, they are interested, strive to achieve their own scientific and personal goals. According to Dev (1997), a student who is intrinsically motivated will not need any kind of reward or incentive to incite or accomplish a task, an externally motivated student studies solely for reward or avoidance of punishment. Lepper (1988) determines, that external motivation requires receiving a certain reward or avoiding a certain punishment, that is outside the activity itself, such as teacher evaluation or approval. Therefore, students with internal motivation are more persistent, self-directed, strive to improve and enjoy learning. And externally motivated students try to get better grades with less effort and are forced to learn. Intrinsically motivated students use strategies that require more and more intensive information processing. Internally oriented students are not afraid to spend time on complex tasks, at the same time externally oriented students are looking for tasks with a low degree of complexity. It is known, that students with high intrinsic motivation achieve a higher average score (GPA) and have consistent performance. Appearance-oriented students tend to make the minimum amount of required effort to obtain the maximum reward, it is necessary to publicly acknowledge their academic achievements (Lepper, 1988).

In addition to external regulation, a-motivation, which is characterized by a sense of loss of the educational process's significance and attendance of the tertiary educational institution, has a significant negative connection with the productive strategies of educational behavior. This means that the higher the rate of a-motivation is, the less effort students will make, less time they will devote to homework and more often they will resort to educational deception.

According to Allen et al. (2004) there is no difference between external motivational measures and a-motivation, they believe that distance learning technologies have an active influence on it. The learning process is also influenced by the human factor, skills and the speed of the student's reaction.

2. The basic motives of students are as follows:

-cognitive motives (to acquire new knowledge and become more erudite);

-large-scale social motives (expressed in the desire of the individual to assert oneself in the society, to assert his social status through training);

-pragmatic motives (to receive a decent reward for one's work);

-professional and value motives (to expand the opportunity to get a promising and interesting job);

-aesthetic motives (to enjoy learning, revealing one's hidden abilities and talents);

-status-positional motives (the desire to validateoneself in the society through learning or social activities, to gain the recognition of others, to occupy a certain position);

-communicative motives (to expand the circle of communication by raising one's intellectual level and new acquaintances) (Rogers & Freiberg, 1997);

-traditional-historical motives (stereotypes that have emerged in society and strengthened over time);

-utilitarian-practical motives (the desire for self-education);

-educational and cognitive motives (focus on ways of acquiring knowledge, mastering specific subjects)

-motives of social and personal prestige (orientation to a certain position in the society);

-unconscious motives (obtaining educationnot by choice, but under the influence of someone, based on a complete misunderstanding of the meaning of the information received and a complete lack of interest in the cognitive process) (Csikszentmihalyi, 2017).

3. The formation of positive students' motivation in the learning process is influenced by the following conditions:

- professional qualities of the teacher (his desire and ability to teach);

-attitude to the student as an equal person and the correct organization of the process of obtaining knowledge;

- promotion of the student's self-determination and positive emotions;

- use of methods that hide the student's desire to learn;

-acquaintance of students with the nearest and final purposes of training;

- professional and practical orientation of training, availability of educational material;

-constant encouragement and motivation of students.

The abovementioned leads us to the conclusion that there are the following ways to increase motivation:

-informing the student about the importance of knowledge gained at tertiary educational institution and its usefulness in the future;

A student enters the tertiary educational institution in order to become a good specialist in a certain field.That is why the educator should be able to prove to students that his subject will really be useful in his further activities (Rogers & Freiberg, 1997).

-the student's interest not only in the subject, but also the representation of opportunities for him in order to use the knowledge obtained in practice;

Carver and Scheier (1999) think that in order for the student to be truly involved in the work, it is necessary that the tasks, set before him during the educational activities, should be not only clear, but also internally accepted by him, that is, that they become relevant to the student. For as much as the intrinsic source of the motivation is inside a person, he should be willing to do something by himself and complete this task. Therefore, the basic motive for learning is the internal motivation.

-the educator should be his mentor so that he can be asked for help during the educational process, to discuss exciting issues;

Expressions of respect for students.Whatever the student is, he in any case requires appropriate treatment (Anwer, Saleem & Mehfooz, 2018).

4. The score-rating system of assessment of students' knowledge is one of the basic incentive motives.This system, as one of the modern technologies, used in the field of quality management of educational services, is the main tool for assessing the student's work in the process of educational and production, scientific, extracurricular activities and determining the graduate rating at the end of this process (Khekkhauzen, 2001). In particular, its advantages are as follows:

-increasing the objectivity of the assessment of student's achievement in education;

It is a common fact that objectivity is the basic requirement for assessment – it is not very well implemented in the traditional system.According to the score-rating system, the exam ceases to be the "last verdict", because it will only add points to those, scored for the semester (Gordeeva et al., 2013).

-the score-rating system makes it possible to more accurately assess the quality of education.

For instance, such a situation is possible:the excellent scores have been receivedfor all current and control tasks, and thesatisfactory scores has been receivedfor an exam (things happen). In this case,the total amount of scores obtained may make it possible to receive a well-deserved five (according to the traditional rating scale) (Chapell et al., 2015).

-this system removes the problem of "session stress": if at the end of the course the student receives a significant amount of scores, he may be exempted from taking the exam or writing a test.

4. Discussions of Results

The results of the study conducted show that internal motives as specific psychological stateshave an impact on academic achievement indirectly through productive strategies of learning behavior. This means that interest in the subject, the desire to learn something new and achieve high results stimulate students to persevere in the learning process, make an effort in class and devote more time to doing homework, which, in turn, leads to increased academic performance.

External motives also have an indirect effect on academic performance through academic deception.It has been revealed that the more expressed the desire of students is to study for external (unrelated to the subject of educational activities) awards and the lower theirintrojectional regulation is, the more often they resort to educational deception and the lower their academic performance is.

This study correlates with others which confirm particularly differences in the level of anxiety and success, the relationship of these variables in males and females (Chapell et al., 2015). A higher level of anxiety, for example, corresponds to a lower average score. There were no significant differences in graduate students in assessments depending on the low / high level of anxiety (Chapell et al., 2015). Other internal motives are factors such as hope, which determines objective academic success to a greater extent than intelligence, personal characteristics and previous academic achievements (Day et al., 2018). Persistence and passion for long-term goals determine the effectiveness of students' practical activities (Duckworth et al., 2011). Higher levels of motivation are observed in students who do their homework better.

This determines further success in practical classes. Cognitively complex tasksdetermine success in accordance with the perception of students in different ways. Perceptions of tasks as complex correspond to a low level of success (Dettmers et al., 2010). Intrinsic motivation is able to determine active participation in any student activity, motivation is closely related to the state of flow (Lee et al., 2019).

4.1 Theoretical Significance of the Study

-Theoretical concepts about motivation as a structural-level education have been specified and concretized.

-The concepts of value, reflecting the attitude to activity as a tool of satisfying the personality's development needs, and their influence on the motivation of educational activity have been highlighted.

-The concepts about the motives of educational activity and the student's personality values of tertiary educational institutions,requiring correlation with the life objectives,as psychological parameters of professional activity have been specified.

4.2 The Practical Significance of the Study

Knowledge about the peculiarities of the educational motivationformation at tertiary educational institutions and personality's value systems in the process of its professionalization can be used in the educational process to optimize the educational activities of students and improve training of future specialists. The obtained results make it possible to clarify the subjective criteria for the effectiveness of students' learning. The knowledge about the content of personality's value systems of a modern studentand its manifestation in the motivation of educational activity is of practical importance both in terms of self-knowledge and self-development of a person, and in terms of organizing professional university and postgraduate training.

5. Conclusions

An important practical conclusion from the results obtained lies in the fact that the effectiveness of the learning process largely depends on the strategies of learning behavior used by students. Consequently, educators (and parents) should not only deliver educational material, but also teach students more effective ways and techniques for capturing it. For instance, the educator may recommend students to make a plan (or scheme) of the material studied or lend assistance to students in developing an individual plan for its mastering.

It is also important to understand that the best type of motivation (motives) that leads to the highest results of educational activities is the interest in the process of cognition and acquisition of competence, and therefore it is desirable to strive to work on such changes in content and teaching methods, supporting students' interest. On the contrary, the traditional appeal to the strategies of control, comparison, criticism, threats and psychological manipulation lead only to the imitation of educational activities by the student, the willingness to abandon it at any time, using strategies of educational deception, cheating, etc.. Finally, our results demonstrate the benefits of supporting persistent behavior strategies based on the belief that everyone can succeed in learning.

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