MOTIVATION OF UNIVERSITY STUDENTS AND ITS CULTIVATION

Martina Blašková

Police Academy of the Czech Republic, Faculty of Security Management
Lhotecká 559/7, P.O.Box 54, 143 01 Praha 4, Czech Republic
E.mail: blaskova.fri@gmail.com

Ruta Adamonienė

Mykolas Romeris University, Public Security Academy,
Maironio str. 27, LT-44211 Kaunas, Lithuania
E.mail: rutadam@mruni.eu

Dominika Tumová

University of Žilina, Faculty of Management Science and Informatics
Univerzitná 8215/1, 010 26 Žilina, Slovak Republic,
E.mail: dominikatumova@gmail.com

Rudolf Blaško

University of Žilina, Faculty of Management Science and Informatics
Univerzitná 8215/1, 010 26 Žilina, Slovak Republic
beerb@frcatel.fri.uniza.sk

_____

Annotation. The intention of the paper is given to the motivation of university students and the way of influence it intentionally and unintentionally. The academic motivation of students represents the power of conviction, dedicated energy, enthusiasm, zeal toward their academic performance, but also various urges to reject unwanted conditions, the need to actively avoid potential losses and failures, etc. It is formed by many factors, events, tools and situations, acting in accordance with dichotomy, i.e. positively and negatively. The empirical part focuses on examining the expected effectiveness or significance of motivational tools versus the frequency of motivational tools really applied towards students. The results of a survey conducted on a sample of 142 students from the University of Žilina, Slovakia, show that there is a disproportion between the potentially most effective motivators and/versus actually applied motivators. In addition, university teachers utilize a largely unchangeable, stable spectrum of motivators to students, while not reflecting on the change in students' motivation or expectations. Since student motivation is part of a broader system of overall academic motivation, it is desirable to systematically enhance it and thus contribute to the overall academic success of university.

Keywords: academic motivation, student, motivational tools, efficiency, application, survey.

INTRODUCTION

In the higher education, "each individual is not only seeking knowledge but also applying and shaping it. The character of the individual is shaped into a person who excels intellectually,

emotionally, and spiritually"[1] (p. 2). This means the education is a powerful generator of social capital[2]. However, only a few educational programs or university motivational systems addressed issues of motivation "in a systematic and comprehensive way"[3] (p. 55). This fact needs to be definite changed because "people with high-quality motivation adapt well and thrive; people with motivational deficits flounder"[4] (p. 14).

Motivation is an important foundation of academic development in students[5] and is searched by many scientists, e.g. Watt[6], Leopold & Smith[7], Silva et al.[8], Khudur[9], Roßnagel & Fitzallen[10], etc. It can be understood as the motivation to decide for and continue with university studies[11] and as a verve for academic achievement that involves the degree to which students possess certain specific behavioural characteristics related to the motivation.[12]

However, search of the expected, subjectively perceived effectiveness of motivational tools, judged by the students themselves, and comparison of it with the structure and frequency of the motivators actually applied, supplemented by the possible adaptation of the range of motivators to changes in university students' motivation, is rare in literature. Thus, **the aim** of this paper is to disclose potential disproportions between the potential efficiency of the motivators perceived by the students and/versus the frequency and flexibility of motivators really used to them. **Methodology of the Research:** The papers contains the analysis, synthesis,

---

[1] Triyanto. The Academic Motivation of Papuan Students in Sebelas Maret University, Indonesia. SAGE Open January–March 2019, 1–7

[2] Green, A.; Preston, J.; Janmaat, J. G. Education, Equality and Social Cohesion. A Comparative Analysis. Palgrawe Macmillan, New York, 2006

[3] Derner, N. Mutual relationship of personal interests and the evolution of complex social systems. Rainer Hampp Verlag: Munchen, Germany, 2008

[4] Reeve, J. Understanding motivation and emotion (5th ed.). John Wiley & Sons, 2009

[5] Rowell, L., Hong, E. Academic motivation: Concepts, strategies and counseling approaches. Professional School Counseling 2018, 16

[6] Watt, H., Richardson, P., Smith, K. (Eds.). Global Perspectives on Teacher Motivation (Current Perspectives in Social and Behavioral Sciences), 2017. Cambridge: Cambridge University Press

[7] Leopold, H.; Smith, A. Implementing Reflective Group Work Activities in a Large Chemistry Lab to Support Collaborative Learning. Education Sciences 2020, 10, 7

[8] Silva, G. M. C. da et al. Comparison of students' motivation at different phases of medical school. Revista da Associação Médica Brasileira 2018, 64(10), 902–908

[9] Khudur, S. Kurdish students' motivation to study in Hungary. Budapest International Research and Critics in Linguistics and Education (BirLE) Journal 2019, 2(2), 6–15

[10] Roßnagel, C. S., Fitzallen, N. Constructive Alignment and Student Motivation: Differential Effects on Intrinsic Motivation and Cognitive Demand. AARE Conference 2019. Kelvin Grove, Australia

[11] Wilkesmann, U., Fischer, H., Virgillito, A. Academic motivation of students – The German case. Discussion Papers des Zentrums für Hochschule Bildung – Technische Universität Dortmund, 2012, 2

[12] Hwang, Y. S., Echols, C.; Vrongistinos, K. Multidimensional academic motivation of high achieving African American students. College Student Journal 2002, 36, 544–554

comparison and generalization of theoretical knowledge in the field of student motivation; the empirical parts presents, analyses, compares and discusses the results of questionnaire survey; the conclusion contains generalisation, abstraction and modelling of possible suggestions.

MOTIVATION OF UNIVERSITY STUDENTS

Universities that have always strived for knowledge reproduction for the growth of society well-being, must change the managerial paradigm; then, these ones can be drivers of socio-economic development and scientific-educational potential.[13] The academic motivation of students represents the power of conviction, dedicated energy, inflammation, but also various urges to reject unwanted conditions. It mirrors the need for active action to avoid potential losses and failures. It also contains active, conscious and subconscious processes of intra-personal correction of both motivational states and dynamics existing in the student's personality. Thereto, the motivation of university students is formed by many factors, events, tools and situations, also dichotomous: positive and negative.

Student motivation deals with the "orientation to the actions which is important to compel with the perfect standards"[14] (p. 89). And, it is the motivation that has to be respected and advanced mainly. In such a view, motivating can be defined "as the overall processes that give rise to faculty members initiating, sustaining, and regulating goal-directed behaviours"[15] (p. 3).

However, the motivation and the student satisfaction are qualities exercised by students who plan on pursuing graduate studies, but these qualities alone are not enough to overcome existing barriers to graduate education today[16] (p. 408). Students' academic achievement requires coordination and interaction between different aspects of motivation.[17] From the perspective of self-regulated learning, "a metacognition is considered as an important predictor

[13] Boyko, O., Svitaylo, N. Postmodern university understanding: Organizational and managerial aspects. Bulletin of Kyiv National University of Culture And Arts 2019, 2(2), 121–135

[14] Kumawat, S. Academic achievement motivation among Junior College Science Faculty Students. International Journal of Indian Psychology 2017, 4, 88–92

[15] Daumiller, M., Stupnisky, R., Janke, S. Motivation of higher education faculty: Theoretical approaches, empirical evidence, and future directions. International Journal of Educational Research 2020, 99: 101502

[16] Griswold, W., Saulters, O. S., Sanders, A. G. Y. The future of sustainability: A participant motivation model for higher education, research, and practice. Creative Education 2018, 9, 406–425

[17] Yousefy, A., Ghassemi, G., Firouznia, S. Motivation and academic achievement in medical students. Journal of Education and Health Promotion 2012, 1, 4

of student motivation and achievement. This process requires students to independently plan, monitor, and assess their learning. However, few students naturally do this well"[18] (p. 4).

Stated differently, it may be difficult to maintain motivation; one reason commonly linked to motivational burnout is stress.[19] It is teachers' responsibilities to make learning more accessible, understandable, and interesting, and, in this way, the problem of motivation of the learners is relevant in education[20] (p. 118). It means, the student motivation is connected with and affected especially by the motivation of pedagogical, managerial and administrative staff of university, and vice versa. In addition, it is affected and permanently progressed by the motivational influence of peers, friends, parents, etc.

MOTIVATIONAL APPROACHES AND TOOLS

The literature presents many different approaches, measures, tools, steps, decisions, instructions, advices, etc. that can be used to motivate students. The problem, however, consists in fact that many of academicians focus only on the professional side of their impact on students. Motivation remains often forgotten. As if the motivation of the students was automatically intensive by itself, without any imperfections and the need to improve it, i.e. without any need for help in its advancement.

Thereto the same attention, as is paid to the motivation of employees and managers of various companies, must be given to university teachers and scientists, and in particular to students. Indeed, the student motivation needs to be more cared, as their academic motivation will be transformed in the work motivation, and will be disseminated to other individuals and groups. It will affect the motivation of many people in the future, either positively or negatively.

From that perspective, it may be recommended to respect e.g. the expectancy-value theory in a *person-centred approach*.[21] Also, *constructive alignment* of teaching and learning is seen as an effective approach to improve students' learning outcomes.[22] With application of

---

[18] Zumbrunn, Z., Tadlock, J., Roberts, E. D. Encouraging self-regulated learning in the classroom. Proceeding of Metropolitan Educational Research Consortium 2011, p. 7

[19] Ractham, V., Thompson, A. The effect of chronic stress on learning orientation: A Thailand case study. International Business Management 2015, 9, 117–121

[20] Korsun, I. The formation of learners' motivation to study physics in terms of sustainable development of education in Ukraine. Journal of Teacher Education for Sustainability 2017, 1, 117–128

[21] Poon, D., Watt, H., Stewart, S. Future counselors' career motivations, perceptions, and aspirations. Higher Education, Skills and Work-Based Learning 2019, 10(1), 155–170

[22] Roßnagel, C. S., Fitzallen, N. Constructive alignment and student motivation: differential effects on intrinsic motivation and cognitive demand. AARE Conference 2019, Kelvin Grove, Australia

problem-based learning, viewed as a learning strategy for mirroring both support and trustworthiness provided to students, "student develop transferable skills that can be applied across disciplines, such as collaboration, problem-solving and critical thinking"[23] (p. 175). To achieve a higher level of knowledge identification with and building the future professionalism, the *experiential learning* is a clever strategy: "Students need to work with authentic challenges, to be exposed to proven practices and to interact with practitioners in different roles"[24] (p. 1).

Collaborative learning can be viewed as a recommended 'connective strategy' for make student's learning more accessible and understandable. "When collaboration is facilitated skilfully, it benefits all students, especially those from marginalized and historically underserved groups"[25] (p. 1). It means the student belongingness is important for successful study paths.[26] Complexly, there exist three reasons for accepting social belonging as the domain of fostering motivation: 1. Adopting similar motivations as relationship partners may affirm a positive self-image; 2. People have a basic need to belong; 3. Sharing motivation with others may serve important collective goals[27] (pp. 81–82). It is therefore necessary to treat students with understanding and try to re-draw them into mutual respect, support, and belonging.

It is also appropriate to accent the writing instructors using strategies in generating students' initial motivation.[28] In addition to introductive communication, the subsequent (conclusive) this one is important, i.e.: "affective feedback which motivates students to learn"[29] (p. 59) or "an open-floor style exit interview with the senior teams which captures the students' experiences"[30] (p. 1). Students need to meet their social motives (getting a higher status) and

---

[23] Fukuzawa, S., Boyd, C. L., Cahn, J. Student motivation in response to problem-based learning. Collected Essays on Learning and Teaching 2017, X. 175–187.

[24] Bertoni, M., Bertoni, A. Measuring Experiential Learning: An Approach Based on Lessons Learned Mapping. Education Sciences 2020, 10, 11

[25] Leopold, H.; Smith, A. Implementing Reflective Group Work Activities in a Large Chemistry Lab to Support Collaborative Learning. Education Sciences 2020, 10, 7

[26] Kontro, I., Génois, M. Combining Surveys and Sensors to Explore Student Behaviour. Education Science 2020, 10, 68

[27] Walton, G. M., Cohen, G. L. Sharing motivation. In D. Dunning (Ed.), Social Motivation. New York: Psychology Press, 2011. 79–102

[28] Cheung, Y. L. The effects of writing instructors' motivational strategies on student motivation. Australian Journal of Teacher Education 2018, 43(3), 4

[29] Jiménez, S., Juárez-Ramírez, R., Castillo, V. H., Armenta, J. J. T. The impact of the affective feedback on student motivation to learn. In Affective Feedback in Intelligent Tutoring Systems, 2018

[30] Shah, D., Kames, E., Clark, M., Morkos, B. Development of a Coding Scheme for Qualitative Analysis of Student Motivation in Senior Capstone Design. ASME 2019. Anaheim, California, USA

the pragmatic motives (getting a high salary); these ones result into the confidence that knowledge gained at university will help them to achieve success in their professional activity.[31]

RESEARCH

Teachers see lack of inner motivation and, in response, they use grades, stickers, praise, recess privileges, and threats of doom to motivate their students[32] (p. 111). But, motivating the students includes many self-motivational processes and activities which students actively participate in, and in this way, act on their own motivation. "Life goals and subsequent service participation are a function of students' citizenship predispositions, the intensity and context of service involvement, and, importantly, the benefits that students derive from their service participation"[33] (p. 312). In addition, there exist a lot of other motivators that efficiently act on the student motivation. Based on this premise, the authors decided to perform a sociological questioning aimed at disclose the expected effectiveness of motivators versus real frequency of applied motivators, while these ones were both of quasi-material and relational character.

There participated $n = 142$ students of the University of Žilina, Slovak Republic, in the survey. Of them, 77 were female and 65 were male in all 3 degrees of study: 1st degree (Bachelor; 53 male and 54 female), 2nd (Master; 12 male, 21 female) and 3rd (PhD; 2 female).

Data analysis and results

Crucial questions were aimed to searching the ***effectiveness of motivation tools*** *that is expected by students* on the one hand. The respondents' role was to assign the subjective effectiveness on the scale 1–10 to each of listed 12 motivators (1 = the most effective motivator; 10 = the ineffective motivator). Hierarchical order was worked out in this way (Table 1). The provided list of motivators was generated by previous respondents, i.e. respondents who took part in the authors' previous surveys (performed since 2004). In first surveys, this field had a form of an open question. The former respondents' role consisted in setting the motivators which were the most important for them; then, the most frequent 12 motivators, collected from all respondents, were incorporated in modified version of questionnaire.[34]

---

[31] Russkikh, L. Students' motivation to study. The European Proceedings of Social & Behavioural Sciences, 2019. 397–404

[32] Reeve, J. Understanding motivation and emotion (5th ed.). John Wiley & Sons, 2009

[33] Rockenbach, A. B., Hudson, T. D., Tuchmayer, J. B. Fostering meaning, purpose, and enduring commitments to community service in college. The Journal of Higher Education, 85(3), 312–338, 2014

[34] Blašková M., Stachová, K., Ferenc, K., Stacho, Z., Blaško, R. Motivation: Motivational spirals and decision making, 2nd edition. Berlin: LAP Lambert Academic Publishing, 2019

The total score of these factors (highest score = highest overall efficiency) was also calculated to create a clear ranking based on efficacy. The most effective motivator was *correctness/fairness of teachers and management,* with a total score of 1,078 points. In second place was *creating good relationships and atmosphere* (1,037). The third was *fair and objective criteria for evaluating student results* (912). *Threats and sanctions* (with score only 504 points) were the least effective motivating factor.

Table 1. Perceived potential effectiveness of motivational factors

Motivator		Frequency – values on a scale of 1 to 10										Total score
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
1	Correctness of teachers and management	5	1	4	5	19	11	17	13	15	52	1,078
2	Good relationships and atmosphere	6	3	2	6	12	9	26	33	15	30	1,037
3	Fair criteria for evaluate academic results	8	7	9	9	14	22	19	19	10	25	912
4	Space for student autonomy	9	6	7	9	16	17	24	23	16	15	906
5	Interest in student opinions/suggestions	7	7	10	7	18	23	24	22	4	20	887
6	Extra (bonus) points	10	10	10	4	24	13	15	26	3	27	884
7	Further knowledge growth	11	5	11	5	18	17	33	17	12	13	871
8	Verbal praise	10	13	9	7	18	13	24	25	10	13	847
9	Providing necessary information	9	11	9	14	19	21	12	21	9	17	838
10	Involving students in faculty research	34	16	11	11	24	15	10	13	4	4	603
11	Involving students in faculty development	28	15	20	14	18	19	10	12	2	4	602
12	Application of threats and sanctions	49	21	11	11	16	13	4	8	4	5	504

On the other hand, the respondents' task was to select the **3 most important motivators** (among the factors marked in the previous question). These three factors were ranked in order of priority (Table 2). The total score of the factors (the highest efficiency = 3 points; the lowest = 1 point) was also calculated to rank the most effective motivators. The first two places in Table 2 coincided with the first two places in Table 1. Thus, the most important of the most effective motivating factors were *correctness/fairness* (128) and *good relationships* (123).

However, differences in the third place were identified, i.e. the third most important factor was *extra (bonus) points* (103), but it was ranked sixth in the overall ranking of effective factors. Moreover, *fair criteria for evaluation* in the selection of the most important effective motivators got up to ninth place (44), despite the fact that overall in the active tools was in third place. *Threats and sanctions* were the weakest again (11).

ISSN 2029-1701
ISSN 2335-2035 (Online)

Mokslinis žurnalas
VISUOMENĖS SAUGUMAS IR VIEŠOJI TVARKA
PUBLIC SECURITY AND PUBLIC ORDER
2020 (24)   Research Journal

Table 2. Importance of the most effective motivational factors

	Motivator	Frequency of			Total score
		The highest	Medium	Lowest	
1	Correctness of teachers and management	24	16	24	128
2	Good relationships and atmosphere	21	18	24	123
3	Extra (bonus) points	22	11	15	103
4	Verbal praise	17	19	9	98
5	Interest in student opinions and suggestions	18	16	11	97
6	Providing necessary information	11	16	10	75
7	Space for student autonomy	9	15	13	70
8	Enabling further knowledge growth	11	11	12	67
9	Fair criteria for evaluate student results	3	14	7	44
10	Involving students in faculty research	3	4	2	19
11	Involving students in faculty development	2	0	11	17
12	Threats and sanctions	1	2	4	11

Further attention was paid to the ***actual application of the motivators examined***. For the same factors, respondents were asked to indicate exactly which of them were actually applied to them by teachers (Table 3). Only in two motivational factors almost exactly it matches their actual use with the opinion of students on their effectiveness. The most used factor was *providing extra points* (by 86.62% of respondents), which is also the third most effective factor (Table 2). *Verbal praise* (61.27%) was identified as the second most used motivational tool; this factor was also ranked fourth in terms of efficacy (Table 2).

Table 3. Motivational tools actually applied by lecturers

	Options	Applied motivation tools	
		Frequency	[%]
1	Extra (bonus) points	123	86.62%
2	Verbal praise	87	61.27%
3	Threats and sanctions	82	57.75%
4	Providing necessary information	77	54.23%
5	Fair and objective criteria for evaluate student results	69	48.59%
6	Interest in student opinions and suggestions	61	42.96%
7	Space for student autonomy	52	36.62%
8	Good relationships and atmosphere	49	34.51%
9	Correctness/fairness of teachers and management	46	32.39%
10	Enabling student further knowledge growth	42	29.58%
11	Involving students in faculty research	31	21.83%
12	Involving students in faculty development	28	19.72%

Despite the fact that, from the perspective of students, the most effective motivator was the *correctness/fairness of teachers and management* (Table 1, 2), only 32.39% of respondents stated that this factor was actually used; in the order of the motivators used it is in the ninth

place (Table 3). However, it is also worrying that more than half of respondents (57.75%) identified *threats and sanctions* as one of the most used motivators. Thus, educators often use repressive tool, even though they are considered the least effective by students.

For almost all of students, academic progress is very importance.[35] Via this perspective, last question examined in this paper refers to the dynamics of decision-making of teachers in respect of motivation tool application. According to respondents, in terms of the passage of time and motivational dynamics, educators proceed as follows: (1) they constantly change motivation tools according to changes in student needs (this option was chosen by 16, i.e. 11.27% of respondents); (2) they change motivational tools only in cases of significant changes in student needs (51, i.e. 35.92%); (3) they do not change motivational tools at all (75, i.e. 52.82%). Unfortunately, a majority of respondents consider the set of motivators to be fixed.

In addition to the analysis of selected survey questions, **mutual correlations** were identified. Calculation for Chi-Square Test: yes = χ2 > c; c = Critical value of λ 5%; no = χ2 < c; c = 16.919, χ2 (9). The correlations were first examined between the **perceived effectiveness of motivational tools and the gender of respondents** (Table 4). Significance has been demonstrated in only two cases, i.e. *extra points* and *interest*. In female, the extra (bonus) points are ranked fourth (516 points) and male in seventh (368 points). For a clearer comparison, the average efficacy was calculated, reaching 6.7 in female and 5.66 in male (on the scale 1–10 points of effectiveness). It can be stated that female consider the factor to be more effective.

In the case of *interest in student opinions,* based on the overall score, in female the factor was in fifth place (501 points; with an average effectiveness 6.51) and in male in sixth place (386 points; 5.94). In terms of efficacy, this factor is almost equally important for both groups.

Table 4. Relationship between perceived effectiveness of motivators and gender

Effectiveness of motivator	χ^2 (9)	P-value	Signif.	Effectiveness of motivator	χ^2 (9)	P-value	Signif.
Extra (bonus) points	23.913	0.004	**yes**	Providing information	7.37	0.599	no
Verbal praise	10.687	0.298	no	Good relations	7.334	0.602	no
Interest in opinions	18.499	0.030	**yes**	Space for autonomy	15.187	0.086	no
Further knowledge growth	14.403	0.109	no	Correctness of teachers	11.614	0.236	no
Involving in research	12.492	0.187	no	Fair criteria for evaluation	7.034	0.634	no
Involving in development	6.657	0.673	no	Threats and sanctions	8.153	0.519	no

[35] Russkikh, L. Students' motivation to study. The European Proceedings of Social & Behavioural Sciences, 2019. 397–404

Correlations were investigated also in the ***perceived effectiveness of motivators and their actual implementation*** (Table 5). Dependence was only confirmed in two cases: verbal praise and participation of students in the faculty development. Those 87 respondents, who stated that the *verbal praise* was applied against them, generally ranked it fifth in terms of effectiveness, with the average efficiency 6.4. For respondents against whom the instrument was not applied (55), it was ranked ninth by overall efficiency score and had an average efficiency of 5.27. It means this factor was more important for those against whom it was actually applied.

28 respondents, who stated that they are *involved in the faculty development,* generally ranked this motivator as the tenth place of effectiveness – even though the factor is applied to them, they do not consider it effective. The average efficiency was 5.46. Even those to whom this tool have not been applied (114 respondents) also do not consider it to be effective, because they ranked it as the penultimate – 11th out of 12. Average efficiency reaches the value of 3.94.

Table 5. Relations between effectiveness of motivators and actual application

Effectiveness of motivator	χ^2 (9)	P-value	Signif.	Effectiveness of motivator	χ^2 (9)	P-value	Signif.
Extra (bonus) points	6.472	0.692	no	Providing information	6.931	0.644	no
Verbal praise	18.499	0.030	**yes**	Good relations	10.563	0.307	no
Interest in opinions	5.075	0.828	no	Space for autonomy	10.078	0.344	no
Further knowledge growth	15.949	0.068	no	Correctness of teachers	11.661	0.233	no
Involving in research	9.698	0.376	no	Fair criteria for evaluation	11.155	0.265	no
Involving in development	21.619	0.010	**yes**	Threats and sanctions	7.769	0.558	no

Discussion

With using an Academic Achievement Motivation Test (AAMT), Kumawat has searched differences in academic motivation among male versus female students. Obtained results confirmed author's hypothesis on differences in the academic motivation according to gender: the mean value of female students was higher than the male students. This means "that girls have more academic achievement motivation that the boys"[36] (p. 91). However, this does not correspond with results obtained in Table 4 of this paper. As flows from the similar survey realized on the sample of 218 university students in Jordan, students who have higher level of optimism, life satisfaction, and perceived social support from family, are more likely to have

---

[36] Kumawat, S. Academic achievement motivation among Junior College Science Faculty Students. International Journal of Indian Psychology 2017, 4, 88–92

higher level if intrinsic motivation for academic accomplishment[37] (p. 34). The study of Wilkesmann et al., performed at the students (n = 3,687) from three German universities, reaches the knowledge that the more students know about studying – not the contents of certain disciplines but the more general information on what, why, and how – the more they are motivated in general[38] (p. 15). This result can be positively linked to the results presented in Tables 1 and 2. On the scale 1–10, participated students assigned the highest effectiveness to teachers and managers' fairness and good relations. Amrai et al. searched 9 components of academic motivation and academic achievement: task, effort, competition, social power, affiliation, social concern, praise, token, and achievement. Study points out that "academic achievement has the highest correlation with competitiveness and the lowest correlation with praise. Only the components of task, effort, competition and social concern have a positive and significant relationship with academic achievement"[39] (p. 401). Mentioned results are in accordance with results presented in Table 5. Respondents consider the praise highly important and dependent on real application (with average effectiveness of 6.4 points in a case of use).

CONCLUSION

Resuming the whole paper and especially, its empirical and discussion sections, there exist disproportions between the efficiency of motivational tools, events and approaches, and the frequency of motivators really applied towards the students. Also, students opine that the motivational tools, intentionally aimed on increase of their motivation, are constant, without respect to their motivation's changes. This means the university student motivation is not sufficiently formed and purposefully influenced. This creates space for a potential demotivation or a-motivation of students. In other words, the problem is not the intensity, i.e. the size or strength of students' motivation. The problem is letting the motivation of students without responsible cultivation and harmonization with the university and societal motivations, as well as progressive-appropriate development plans and career ambitions of the students themselves in the future. Diversion of unformed motivation of students and graduates from 'properly targeted, properly structured and properly substantial motivation' may subsequently cause

---

[37] Hamdan-Mansour, A. M. et al. Psychosocial correlates of motivation for academic accomplishment among university students. Procedia – Social and Behavioral Sciences 2014, 159, 32–36

[38] Wilkesmann, U., Fischer, H., Virgillito, A. Academic motivation of students – The German case. Discussion papers des Zentrums für Hochschule Bildung – Technische Universität Dortmund 2012, 2

[39] Amrai, K., Motlagh, S. E., Zalani, H. A., Parhon, H. The relationship between academic motivation and academic achievement students. Procedia Social and Behavioral Sciences 2011, 15, 399–402.

social slowdown and a possible motivation unmet or incompleteness and even overall frustration in their future work and private life. For this reason, university mechanisms should focus on the thoughtful and balanced influence of academic motivation. However, the complex academic motivation contains a multiplied summary of all the motivations existing at the university, i.e. including the motivations of pedagogical, scientific, research, managerial, administrative and service staff, as well as the motivation of the students themselves, their parents, peers, employers, etc.

Although the proper definition and application of effective student motivation tools is complicated, their implementation should become a priority for university and faculty management. In addition, the philosophy and content of applied motivators aimed at improving the student motivation should be consistent with those defined for lecturers, scientists, managers and clerks. In other words, all motivational approaches, tools, measures and events at the university should together form a precise and sophisticated motivational system.

REFERENCES

1. Amrai, K., Motlagh, S. E., Zalani, H. A., Parhon, H. The Relationship between Academic Motivation and Academic Achievement Students. *Procedia Social and Behavioral Sciences* 2011, 15, 399–402. doi: 10.1016/j.sbspro.2011.03.111.
2. Bertoni, M., Bertoni, A. Measuring Experiential Learning: An Approach Based on Lessons Learned Mapping. *Education Sciences* 2020, 10, 11. doi: 10.3390/educsci10010011.
3. Blašková M., Stachová, K., Ferenc, K., Stacho, Z., Blaško, R. *Motivation: Motivational spirals and decision making, 2nd edition.* Berlin: LAP LAMBERT Academic Publishing, 2019.
4. Boyko, O., Svitaylo, N. Postmodern University Understanding: Organizational and Managerial Aspects. *Bulletin of Kyiv National University of Culture nd Arts, Series in Management of Social and Cultural Activity* 2019, 2(2), 121–135. doi: 10.31866/2616-7573.2.2019.190641.
5. Cheung, Y. L. The Effects of Writing Instructors' Motivational Strategies on Student Motivation. *Australian Journal of Teacher Education* 2018, 43(3), 4. doi: 10.14221/ajte.2018v43n3.4.
6. Daumiller, M., Stupnisky, R., Janke, S. Motivation of Higher Education Faculty: Theoretical Approaches, Empirical Evidence, and Future Directions. *International Journal of Educational Research* 2020, 99: 101502. doi: 10.1016/j.ijer.2019.101502.
7. Derner, N. Mutual Relationship of Personal Interests and the Evolution of Complex Social Systems. In M. O'Suillebhain, E. A. Stuhler, D. J. DeTombbe, D. J. (Eds.). Across Disciplinary Boundaries towards a Sustainable Life: Psychodynamic Reflection on Human Behaviour. *Research on Cased and Theories,* 12. Rainer Hampp Verlag: Munchen, Germany, 2008. 55–60.
8. Fukuzawa, S., Boyd, C. L., Cahn, J. Student motivation in response to problem-based learning. *Collected Essays on Learning and Teaching* 2017, X. 175–187.
9. Green, A., Preston, J., Janmaat, J. G. *Education, Equality and Social Cohesion. A Comparative Analysis.* Palgrawe Macmillan, New York, 2006.
10. Griswold, W., Saulters, O. S., Sanders, A. G. Y. The Future of Sustainability: A Participant Motivation Model for Higher Education, Research, and Practice. *Creative Education* 2018, 9, 406–425. doi: 10.4236/ce.2018.93029.

11. Hamdan-Mansour, A. M., Hamaidehb, S. H., Arabiatc, D. H., Azzeghaiby, S. N. Psychosocial Correlates of Motivation for Academic Accomplishment among University Students. *Procedia – Social and Behavioral Sciences* 2014, 159, 32–36.

12. Hwang, Y. S., Echols, C., Vrongistinos, K. Multidimensional Academic Motivation of High Achieving African American Students. *College Student Journal* 2002, 36, 544–554.

13. Jiménez, S., Juárez-Ramírez, R., Castillo, V. H., Armenta, J. J. T. The impact of the affective feedback on student motivation to learn. In *Affective Feedback in Intelligent Tutoring Systems*. Human–Computer Interaction Series. Springer, Cham, 2018. 59–75.

14. Khudur, S. Kurdish students' motivation to study in Hungary. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal* 2019, 2(2), 6–15.

15. Kontro, I., Génois, M. Combining surveys and sensors to explore student behaviour. *Education Science* 2020, 10, 68. doi: 10.3390/educsci10030068.

16. Korsun, I. The Formation of Learners' Motivation to Study Physics in Terms of Sustainable Development of Education in Ukraine. *Journal of Teacher Education for Sustainability* 2017, 1, 117–128. doi: 10.1515/jtes-2017-0008.

17. Kumawat, S. Academic Achievement Motivation among Junior College Science Faculty Students. *International Journal of Indian Psychology* 2017, 4, 88–92.

18. Leopold, H.; Smith, A. Implementing Reflective Group Work Activities in a Large Chemistry Lab to Support Collaborative Learning. *Education Sciences* 2020, 10, 7. doi: 10.3390/educsci10010007.

19. Poon, D., Watt, H., Stewart, S. Future counselors' career motivations, perceptions, and aspirations. *Higher Education, Skills and Work-Based Learning* 2019, 10(1), 155–170.

20. Ractham, V., Thompson, A. The Effect of Chronic Stress on Learning Orientation: A Thailand Case Study. *International Business Management* 2015, 9, 117–121.

21. Reeve, J. *Understanding Motivation and Emotion* (5th ed.). John Wiley & Sons, 2009.

22. Rockenbach, A. B., Hudson, T. D., Tuchmayer, J. B. Fostering Meaning, Purpose, and Enduring Commitments to Community Service in College: A Multidimensional Conceptual Model. *The Journal of Higher Education,* 85(3), 312–338, 2014. doi: 10.1080/00221546.2014.11777330.

23. Roßnagel, C. S., Fitzallen, N. Constructive Alignment and Student Motivation: Differential Effects on Intrinsic Motivation and Cognitive Demand. *Annual Australian Association for Australian Association for Research in Education (AARE) Conference 2019*. Queensland University of Technology, Kelvin Grove, Australia

24. Rowell, L., Hong, E. Academic Motivation: Concepts, Strategies and Counseling Approaches. *Professional School Counseling* 2018, 16. doi: 10.1177/2156759X1701600301.

25. Russkikh, L. Students' motivation to study. *The European Proceedings of Social & Behavioural Sciences,* 2019. 397–404. doi: 10.15405/epsbs.2019.08.03.47.

26. Shah, D., Kames, E., Clark, M., Morkos, B. Development of a Coding Scheme for Qualitative Analysis of Student Motivation in Senior Capstone Design. *Proceedings of the ASME 2019 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference 2019.* Anaheim, California, USA.

27. Silva, G. M. C. da, Borges, A. R., Silva, E. O. da, Lucchetti, A. L. G., Lucchetti, G. Comparison of students' motivation at different phases of medical school. *Revista da Associação Médica Brasileira* 2018, 64(10), 902–908. soi: 10.1590/1806-9282.64.10.902.

28. Triyanto. *The Academic Motivation of Papuan Students in Sebelas Maret University, Indonesia*. SAGE Open January–March 2019, 1–7. doi: 0.1177/2158244018823449.

29. Yousefy, A., Ghassemi, G., Firouznia, S. Motivation and Academic Achievement in Medical Students. *Journal of Education and Health Promotion* 2012, 1, 4. doi:10.4103/2277-9531.94412.

30. Walton, G. M., Cohen, G. L. Sharing Motivation. In D. Dunning (Ed.). *Social Motivation.* New York: Psychology Press, 2011. 79–102.

31. Watt, H., Richardson, P., Smith, K. (Eds.). *Global Perspectives on Teacher Motivation (Current Perspectives in Social and Behavioral Sciences)*. Cambridge: Cambridge University Press, 2017.
32. Wilkesmann, U., Fischer, H., Virgillito, A. Academic Motivation of Students – The German Case. *Discussion Papers des Zentrums für Hochschule Bildung* 2012, 2.
33. Zumbrunn, Z., Tadlock, J., Roberts, E. D. Encouraging Self-regulated Learning in the Classroom. *Proceeding of Metropolitan Educational Research Consortium* 2011, p. 7.