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MODELS OF TIME MANAGEMENT AND STUDENTS' TIME MANAGEMENT ON THE EXAMPLE OF TBILISI STATE UNIVERSITY

Abstract: *Effective time management is a crucial aspect of any individual. Factors such as a hectic schedule, procrastination, stress caused by changes, etc. create the need for time management. Furthermore, improper time management makes an individual feel unable to cope with the duties assigned to him and creates a feeling of instability and chaos. The research included students from the Faculty of Economics and Business and the School of Tourism and Hospitality at Ivane Javakhishvili Tbilisi State University. A total of 908 respondents were surveyed as part of the study. The study aims to determine the characteristics of students' time management at Tbilisi State University at different levels of education. In addition, to identify the main challenges students face while managing their time. Several important hypotheses were formulated during the research process: Hypothesis 1: Level of education and use/non-use of any time management model influence the ability to work according to plan, academic record, and possible deviation from the plan; Hypothesis 2: There is a significant difference between the means of the number of respondents for the ability to work according to plan, balancing study and leisure time, academic record, and deviation from the plan in the undergraduate, master's, and doctoral groups. Quantitative research was chosen as the research methodology. The obtained data were processed using the statistical software package SPSS. Quantitative research enables to generalize findings and analyze data using statistical methods. Based on the study's findings, significant recommendations were created, the consideration of which will contribute to the effective planning of students' time.*

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დროის მენეჯმენტის მოდელები და სტუდენტების დროის მართვა თბილისის სახელმწიფო უნივერსიტეტის მაგალითზე

აბსტრაქტი: დროის ეფექტური მენეჯმენტი წარმოადგენს ნებისმიერი ინდივიდისათვის მნიშვნელოვან ასპექტს. დროის ეფექტური მენეჯმენტის აუცილებლობას ქმნის ისეთი ფაქტორები, როგორიცაა დაძაბული გრაფიკი, ცვლილებებით გამოწვეული სტრესი და ა.შ. გარდა ამისა, დროის არასათანადო მენეჯმენტი აჩრდილობნებს ინდივიდს, რომ ის ვერ უმკლავდება მისთვის დაკისრებულ მოვალეობებს და ქმნის არასტაბილურობისა და ქაოსის განცდას. კვლევაში მონაწილეობდნენ ივანე ჯავახიშვილის სახელობის თბილისის სახელმწიფო უნივერსიტეტის ეკონომიკისა და ბიზნესის ფაკულტეტისა და ტურიზმისა და მასპინძლობის სკოლის სტუდენტები. კვლევის ფარგლებში   გამოიკითხა 908 რესპონდენტი. კვლევა მიზნად ისახავს თბილისის სახელმწიფო უნივერსიტეტის

სტუდენტების დროის მართვის მახასიათებლების დადგენას განათლების სხვადასხვა საფეხურზე. გარდა ამისა, მნიშვნელოვანია მოხდეს იმ ძირითადი გამოწვევების იდენტიფიცირება, რომლებსაც სტუდენტები აწყდებიან დროის მართვისას. კვლევის პროცესში ჩამოყალიბდა რამდენიმე მნიშვნელოვანი ჰიპოთეზა: ჰიპოთეზა 1: განათლების დონე და დროის მართვის ნებისმიერი მოდელის გამოყენება/გამოუყენებლობა გავლენას ახდენს გეგმის მიხედვით მუშაობის უნარზე, აკადემიურ მოსწრებასა და გეგმიდან შესაძლო გადახვევაზე; ჰიპოთეზა 2: ბაკალავრიატის, მაგისტრატურისა და დოქტორანტურის ჯგუფში მნიშვნელოვანი განსხვავებაა რესპონდენტთა საშუალოებს შორის გეგმის მიხედვით მუშაობის უნარის, სწავლისა და დასვენების დროის დაბალანსების, აკადემიური მოსწრებისა და გეგმიდან გადახვევას შორის. კვლევის მეთოდოლოგიად შეირჩა რაოდენობრივი კვლევა. მიღებული მონაცემები დამუშავდა სტატისტიკური პროგრამული პაკეტის SPSS-ის გამოყენებით. რაოდენობრივი კვლევა იძლევა შედეგების განზოგადებისა და მონაცემების ანალიზის საშუალებას სტატისტიკური მეთოდების გამოყენებით. კვლევის შედეგების საფუძველზე შეიქმნა მნიშვნელოვანი რეკომენდაციები, რომელთა გათვალისწინება ხელს შეუწყობს სტუდენტების დროის ეფექტურ დაგეგმვას.

საკვანძო სიტყვები: დროის მენეჯმენტი, დროის მართვის მოდელები, სტუდენტები, აკადემიური მოსწრება, SPSS სტატისტიკური პროგრამული პაკეტი
JEL კლასიფიკაცია: I20

Introduction and review of literature

Effective time management is a crucial aspect of the life of any individual. Factors such as a hectic schedule, procrastination, stress caused by changes, etc. create the need for time management. Furthermore, improper time management makes an individual feel unable to cope with the duties assigned to him and creates a feeling of instability and chaos. As a result, we get a high level of stress, more irritability, the likelihood of making mistakes, and deterioration of the financial situation and relationships (peakslead, 2022) (The Indeed Editorial Team, 2024) (Jovanovic, 2022). The mentioned issue does not lose its relevance in the case of students (Lovin & Moreau, 2022). It is significant to mention that due to financial difficulties, many students in Georgia have to work. In addition, in many cases, students frequently work full-time or night shifts, which significantly complicates the combination of study and work and increases stress levels, which ultimately affects their health and performance, both at university and at work (mcleanhospital, 2024) (Young, Bourke, Foley, & Blasi, 2024). It is worth noting that time management increases productivity, the likelihood of making effective decisions, and self-discipline (Zoloth, 2023). Works by Georgian authors are also devoted to student time management, with a focus on students at private universities (PIRTSKHALAISHVILI & DUGLADZE, 2018).

The study aims to determine the characteristics of students' time management at Tbilisi State University at different levels of education. In addition, to identify the main challenges students face while managing their time. The research included students from the Faculty of Economics and Business and the School of Tourism and Hospitality at Ivane Javakhishvili Tbilisi State University. A total of 908 respondents were surveyed as part of the study. Several important hypotheses were formed during the research process, and as a result, recommendations were developed, the consideration of which will greatly assist students in becoming more efficient through proper time management.

Methodology

Quantitative research was chosen as the research methodology. The obtained data were processed using the statistical software package SPSS. Important hypotheses were developed during the research process, which were tested using various statistical procedures. Quantitative research enables us to generalize findings and analyze data using statistical methods (Lim, 2024).

Results

Students from the Faculty of Economics and Business and the School of Tourism and Hospitality at Ivane Javakhishvili Tbilisi State University participated in our research study. A total of 908 respondents were surveyed as part of the study. Of the participants in the research, 55.7% were students aged 18-21, 22.2% were 22-25 years old, 13.8% were 26-29 years old, and only 8% were over 30 years old. We can infer that the majority of respondents are undergraduate students. Among the respondents, 19.5% were married, 77.1% were single, 3.3% were divorced, and 0.1% were widowed.

20.5% of respondents report a 1-hour break between lectures, 23.3% have a 2-hour break, 4.8% have a 3-hour break, 2.3% have more than 3 hours, and 49% have no break between lectures. It is also interesting to consider the intervals between lectures. It is acceptable if a student has a 1-hour break after a two-hour lecture or seminar. However, if a student has a 2-3-hour break after a 1-hour lecture, the student may feel tired and hungry waiting for the last lecture, which does not indicate proper lecture planning.

During the research process, it was critical to establish how effectively students use their spare time between lectures. It was discovered that 53.3% of respondents spend time interacting with friends, 19.5% spend time in the canteen (outside the university), and just 27.1% of students visit the library. Considerably, using leisure time during lectures is mostly unproductive.

Everyone is concerned about the time spent on transportation, particularly in larger cities. Due to our city's crowded traffic, 73.9% of students spend 1-2 hours on transport, while 10.8% spend 2-3 hours or more. While the student has free time between lectures and must travel for several hours, when he returns home, he will be unable to work efficiently on assignments and lectures/seminars.

Preparation of lectures and seminars is an integral part of being a student. 27% of the respondents devote 1-2 hours to the seminar preparation, 37.6% 2-3 hours, 17.8% 3-4 hours. Unfortunately, some students do not prepare lectures for seminars, and their number is 14.1%.

Everyone understands that reaching one's goals necessitates proper planning and time management. It was discovered that 90.7% of respondents plan their activities for one day, 46.1% - for a month, and only 18% - for the year.

Although not a large number of people can plan for the long term, only 26.8% of the respondents reported that they act according to the plan, 6.2% are unable to act according to the plan, and the majority of the respondents 67.1% manage to sometimes act according to the plan. A healthy lifestyle is important for people of any age, especially for students who spend a lot of time studying and working. A healthy lifestyle affects the physical and psychological state. 2.9% of respondents exercise daily. 27.6% devote 1-2 days a week to training. 3-4 times a week - 12.6%; More than four days a week - 2.8% and 54.2% do not exercise.

Nutrition is vital to a young person's energy restoration. Considering that healthy food is a luxury, it is crucial for the student not to be hungry and to eat several times a day. It was found that only 2.8% of the respondents eat four times a day, three times -59%, two times -36.8%, and once - 1.4%. Hunger in the background of a busy schedule puts the student in an even more difficult situation.

The modern world offers us some time management models for effective time management (Parsons, 2022), (Beal, 2023). 11.9% of respondents claimed they use time management models, 74.4% do not, and 13.7% stated they were unaware of such models.

Students need to be able to maintain a work-life balance to be productive. Mentioned balance creates a harmonious mood for young people, who are not tired and manage to avoid stress. Only 26.7% of the respondents have a balanced study and leisure time. 57.6% manage to balance it, although they would like to rest more, and 15.7% do not have the opportunity.

58.3% of students attend more than four lectures/seminars per week, 22.5% attend four, 13.2% attend 3, 4. 4% - 2. 7% - one. Attendance in lectures/seminars appears to be low for different reasons, including a high level of employment.

In addition to attending lectures and seminars, it's interesting to see how students prepare their material. The work with the book was replaced by previously processed materials provided by the professors. 28.7% of respondents use textbooks, 69.5% use laptops or smartphones, and 1.8% do not prepare lectures or seminars. The busy timetable does not allow pupils to become acquainted with the extra material provided by the curriculum, which has a formal character.

The majority of students work while also devoting a significant amount of their time to transportation, it is not surprising that only 22.8% of respondents get the highest grades, while 27.7% have the lowest. 20.7% of surveyed respondents increased their academic performance from the previous semester, 21.4% worsened their grades, and 54.5% maintained their semester's grade point average.

Given the scarcity of time, students need to identify their time wasters and avoid them. One such way is to use social network-blocking applications. It was found that 13.3% of the surveyed students use such an application, while 78.3% do not, and 8.4% hear about the existence of such an application for the first time. It is important to make students aware of such technologies and methods.

It is clear that dependence on smartphones leads to a waste of time and prevents students from carrying out priority activities, it is difficult for 13.5% of respondents to control its use, 33.8% find it difficult, but they force themselves to be mobilized, 37.8% say that they are not interested in the smartphone while doing interesting work. 14.9% of the respondents have no difficulty controlling the use of the smartphone at all. It is important to use blocking applications and develop time management skills.

Students need to understand what result they want to achieve to identify their flaws and improve the outcome. According to the findings, 65.6% of respondents always set a specific objective and, in many cases, achieve it. This type of response is unusual given that most responders still do not have monthly plans. Setting a goal without a time frame is an enormous problem; 22.9% of respondents believe they have clear goals but rarely realize them, which is unsurprising given that the goal is not time-bound. 7.6% note that their goals and plans are unclear and only try to clarify the situation during work.

Students who do not have a monthly or annual work plan are more likely to multitask, which reduces productivity. 28.6% of the respondents do not have an answer and act according to the circumstances. Inadequate time management causes fatigue and exacerbates stressful situations.
 Major jobs are frequently left undone when planning and schedules are not established. Students have poor self-control, so it is necessary to improve it. 17.5% of the respondents agreed that "I usually forget to do the task because I am overwhelmed with family matters," whereas 82.5% usually complete important tasks first. Students' awareness of importance and priorities is a positive development.

According to 34.1% of respondents, ineffective time management is the reason behind students' academic failure. 46.8% of the respondents made a different assessment, while 19.1% did not have an answer to the question. Researchers indicate that most people attribute their failure to inefficient time management, this is not the case with most of our respondents. It is difficult to treat a "disease" without a diagnosis. Adequate comprehension of the ramifications of time mismanagement can aid youth in resolving numerous issues.

 2.5% of respondents have no idea how long it takes to accomplish a task, 19.2% have a vague idea, and 70.9% often know how long it takes to complete a task. Understanding the time required to complete a task demonstrates students' self-awareness. The following hypotheses were tested to determine whether the level of education and use of a time management model, collaboratively or separately, influence the ability to work according to the plan, academic record, and potential deviation from the plan.

Hypothesis 1: Level of education and use/non-use of any time management model influence the ability to work according to plan, academic record, and possible deviation from the plan;

Hypothesis 2: There is a significant difference between the means of the number of respondents for the ability to work according to plan, balancing study and leisure time, academic record, and deviation from the plan in the undergraduate, master's, and doctoral groups;

MANOVA (multivariate analysis of variance) was used to check the validity of the hypotheses presented. The first table, obtained by the MANOVA statistical procedure, reflects the given factor categories (see Table 1).

Table 1: Factor categories

Between-Subjects Factors			
		Value Label	N
Level of education	1	Bachelor	536
	2	Master's student	250
	3	Ph.D	122
	1	Yes	108

Do you use any model of time management?	2	No	676
	3	I don't know, I've never heard of these models	124

Source: author's work

Table 2 displays the results obtained by the F test in the analysis of variance, namely, the joint dependence of the factors on the dependent variables. The table clearly shows which of the dependent variables is affected by both factors (level of education and use/non-use of any time management model) (see Table 2).

**Table 2:** Levene's Test of Equality of Error Variances a

	F	df1	df2	Sig.
Do you manage to work according to plan?	11.433	8	899	.000
Are you able to balance study and leisure time?	2.448	8	899	.013
Your academic record	5.792	8	899	.000
Do you have to deviate from your plan often?	1.923	8	899	.049

Source: author's work

Table 2 demonstrates that the given factors collectively affect each variable, thereby establishing the validity of hypothesis 1 ($P<0.05$ for each variable). The mentioned group of variables has the greatest influence on the following variables: "Do you manage to work according to plan?" and "Your academic record" (with the maximum statistical relationship, $P<0.001$).

Figures 1, 2, 3, and 4 present the simultaneous influence of both factors on the dependent variables separately. (The Diagrams are built using Graphs in SPSS) (see Figure 1,2,3,4).

Figure 1: "Level of education"/"Do you use any model of time management?" and "Do you manage to work according to plan"?
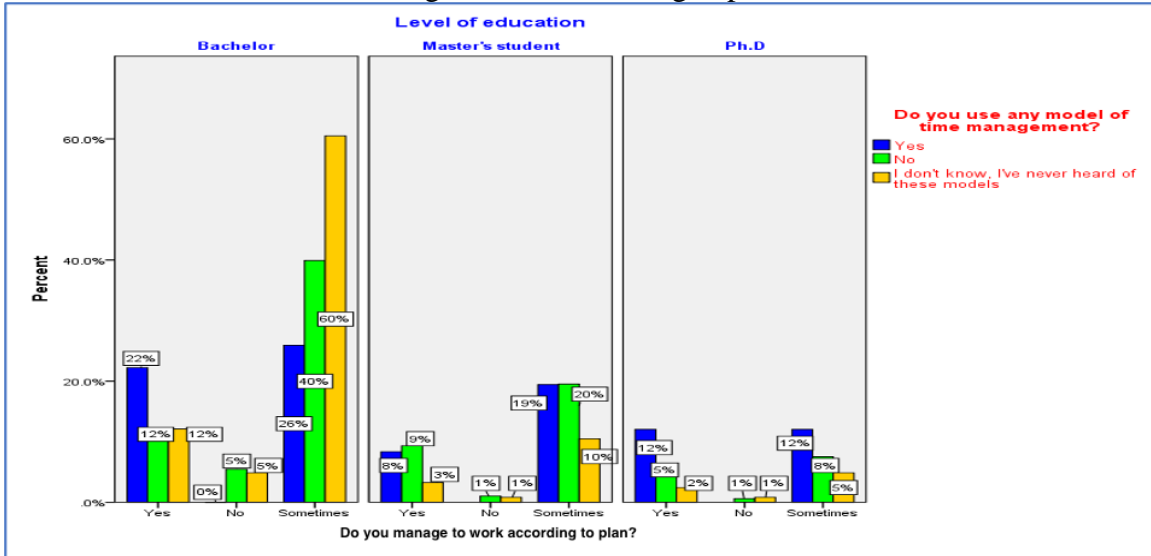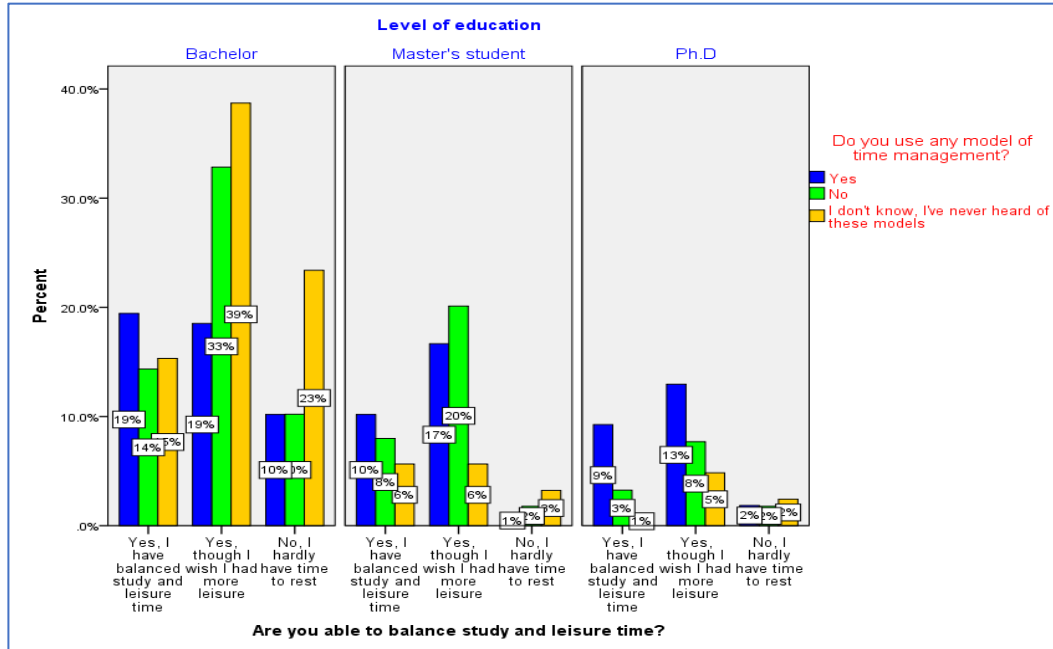

Source: author's work

Figure 2: "Level of education"/"Do you use any model of time management?" and " Are you able to balance study and leisure time"?
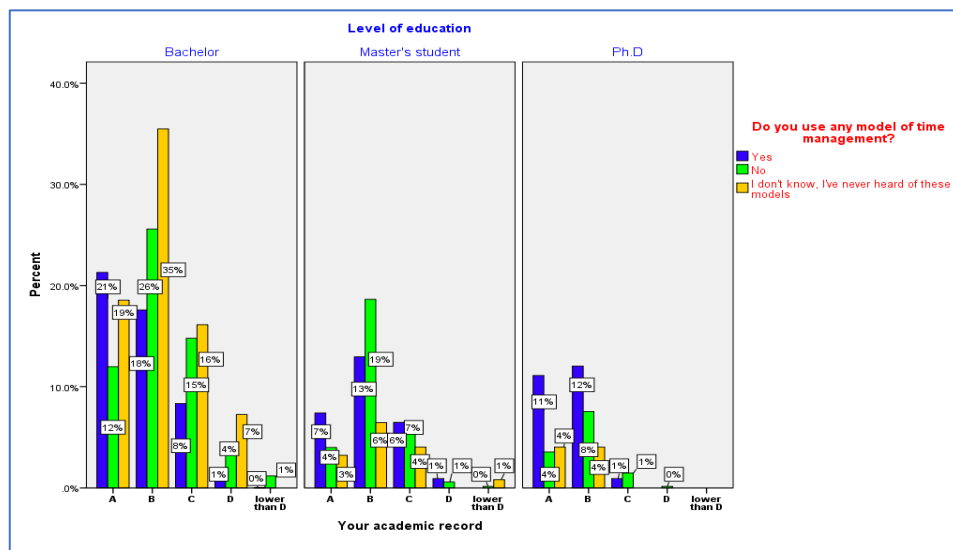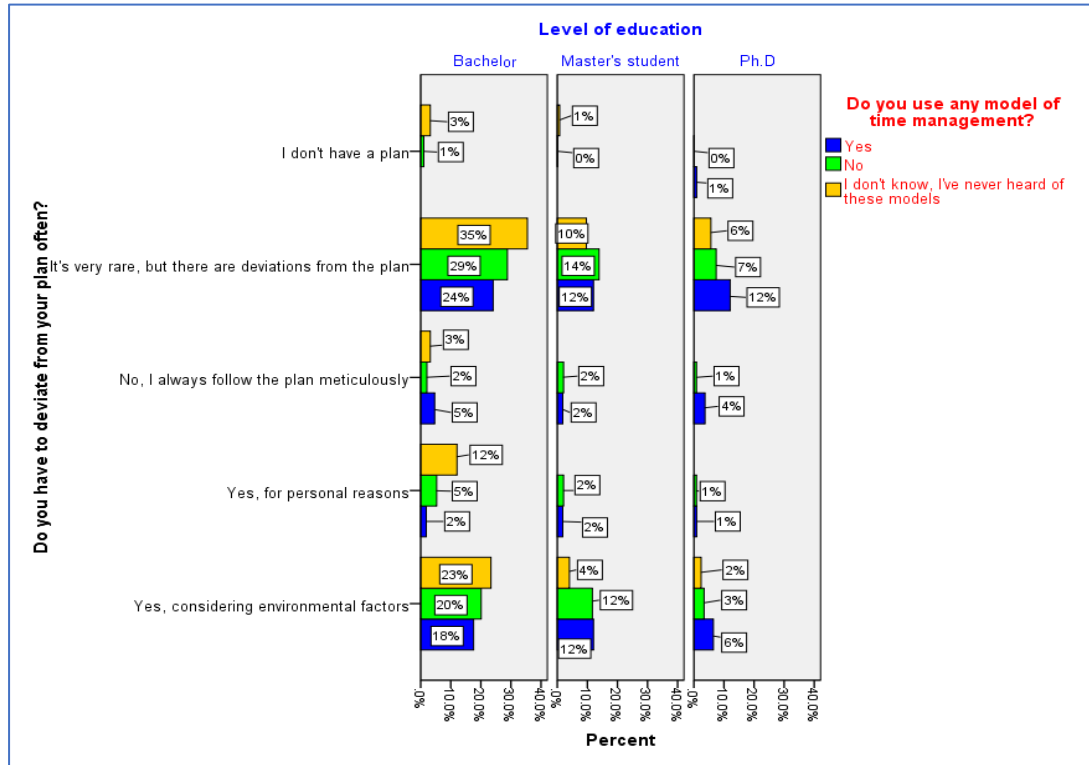

Source: author's work

Figure 3: "Level of education"/"Do you use any model of time management?" and "
Your academic record

Source: author's work

Figure 4: "Level of education"/"Do you use any model of time management?" and "Do you have to deviate from your plan often?

Source: author's work

Table 3 obtained by variance analysis, reflects the influence level of education on the dependent variables.

Table 3: The influence of the factor - level of education on the dependent variables (Univariate Tests)

Dependent Variable		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Do you manage to work according to plan?	Contrast	2.600	2	1.300	1.709	.182	.004
	Error	683.707	899	.761			
Are you able to balance study and leisure time?	Contrast	2.412	2	1.206	2.984	.049	.008
	Error	363.424	899	.404			
Your academic record	Contrast	9.959	2	4.980	7.232	.001	.016
	Error	618.995	899	.689			
	Contrast	3.929	2	1.965	.995	.370	.002

Do you have to deviate from your plan often?	Error	1775.294	899	1.975			

The F tests the effect of the Level of education. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.
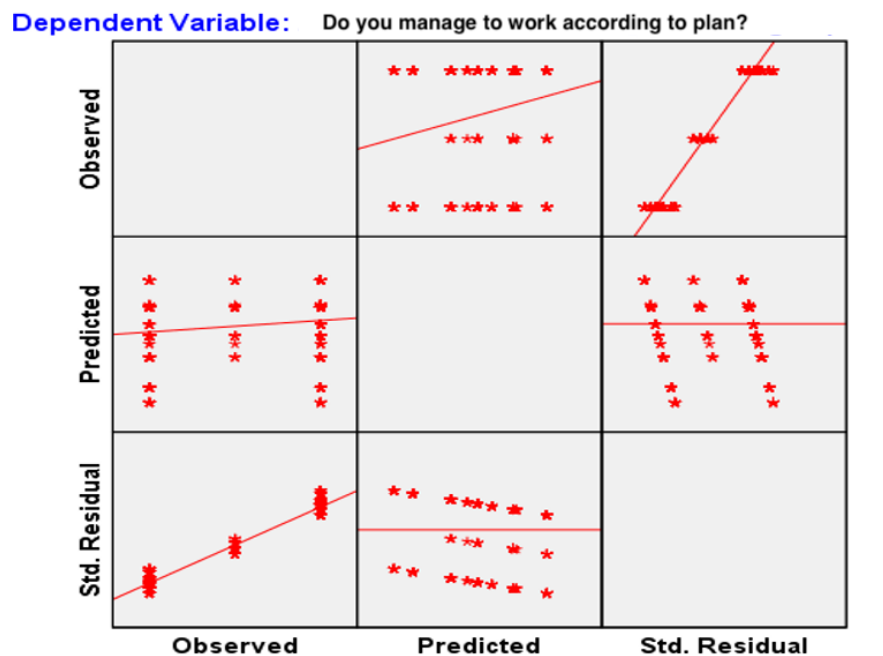
Source: author's work

The results of the F test from Table 3 indicate that the level of education affects academic record (statistical significance level of 0.01), followed by the balance of study and leisure time (statistical significance level of 0.05). The minor impact size (Eta <0.06) is observed between the level of education and the dependent variables. On this occasion, just these two dependent variables support the validity of hypothesis 2. Based on this, we may conclude that there is a considerable difference in terms of academic record and balance of study and leisure time among BA, master's, and doctoral groups (see Table 3).

Employing MANOVA variance analysis, we also obtained graphical representations of observed and expected-predicted (Observed * Predicted * Std. Residual Plots) results for a separate independent variable against the background of both factors and their simultaneous action (see Figure 5 - 8). The regressions presented on the given matrices are expressed by the following:

Model: Intercept+ Q3 Level of Education + Q18 Using any model of time management + Q3 Level of Education* Q18 Using any model of time management

Figure 5: Matrix Scatter of dependent variable: "Do you manage to work according to plan?" For the factors – Level of education and using the time management model
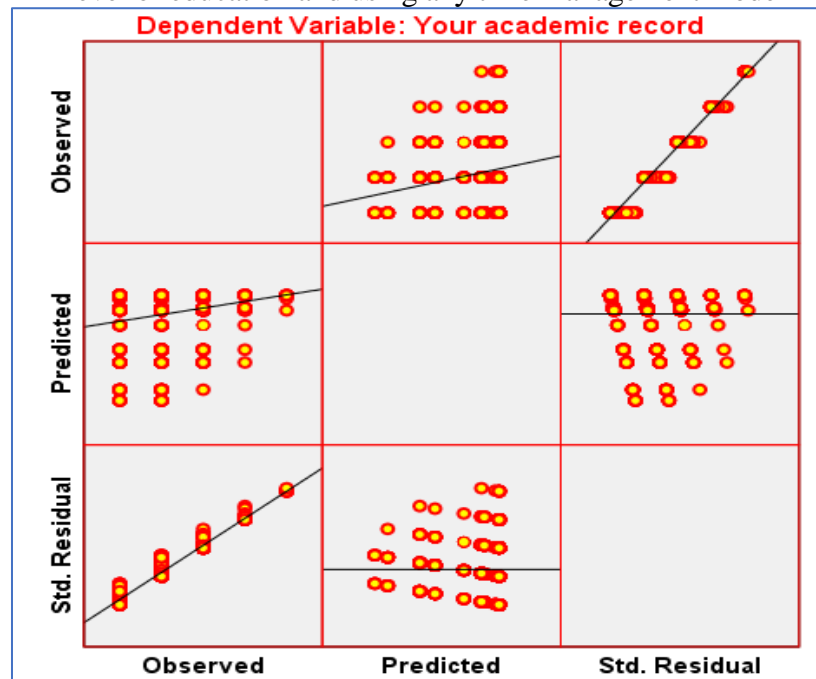

Source: author's work

Figure 6: Matrix Scatter of dependent variable: "Are you able to balance study and leisure time? " For the factors – Level of education and using any time management model.
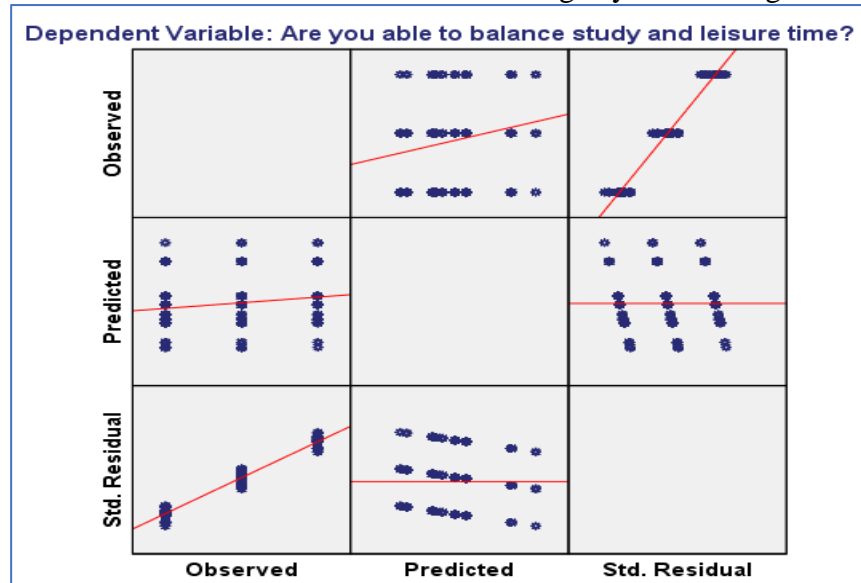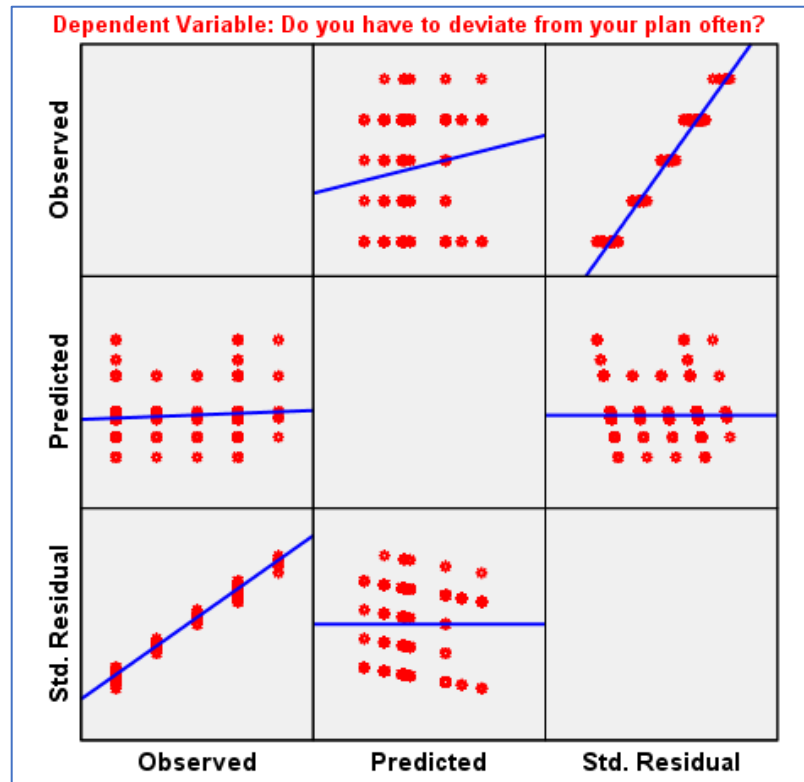

Source: author's work

Figure 7: Matrix Scatter of dependent variable: "Your academic record " For the factors – Level of education and using any time management model

Source: author's work

Figure 8: Matrix Scatter of dependent variable: "Do you have to deviate from your plan often? " For the factors – Level of education and using any time management model

Source: author's work

The frequency distribution of dependent variables according to individual factors is presented in cross-tabulation tables (see Tables 4 and 5).

Table 4: Cross-tabulation (level of education and dependent variables)

| | | Level of education | | |
| | | Bachelor | Master's student | Ph.D |
		Row N %	Row N %	Row N %
Do you manage to work according to plan?	Yes	49.4%	31.3%	19.3%
	No	76.8%	14.3%	8.9%
	Sometimes	61.2%	27.3%	11.5%
Are you able to balance study and leisure time?	Yes, I have balanced study and leisure time	56.6%	29.8%	13.6%

	Yes, though I wish I had more leisure	55.4%	30.8%	13.8%
	No, I hardly have time to rest	76.2%	11.9%	11.9%
Your academic record	A	61.4%	18.8%	19.8%
	B	52.1%	32.7%	15.2%
	C	65.8%	28.6%	5.6%
	D	85.7%	11.9%	2.4%
	lower than D	80.0%	20.0%	0.0%
Do you have to deviate from your plan often?	Yes, considering environmental factors	58.6%	30.9%	10.5%
	Yes, for personal reasons	69.7%	21.1%	9.2%
	No, I always follow the plan meticulously	46.9%	32.7%	20.4%
	It's very rare, but there are deviations from the plan	58.4%	26.2%	15.4%
	I don't have a plan	73.3%	13.3%	13.3%

Source: author's work

Table 5: Cross-tabulation ("Do you use any model of time management?" and dependent variables)

		Do you use any model of time management?		
		Yes	No	I don't know, I've never heard of these models
		Row N %	Row N %	Row N %
Do you manage to work according to plan?	Yes	18.9%	72.0%	9.1%
	No	0.0%	85.7%	14.3%
	Sometimes	10.2%	74.4%	15.4%
Are you able to balance study and leisure time?	Yes, I have balanced study and leisure time	17.4%	71.5%	11.2%
	Yes, though I wish I had more leisure	9.9%	78.4%	11.7%
	No, I hardly have time to rest	9.8%	65.0%	25.2%
Your academic record	A	20.8%	63.8%	15.5%
	B	10.2%	77.3%	12.6%
	C	8.7%	78.6%	12.8%
	D	4.8%	73.8%	21.4%

	lower than D	0.0%	90.0%	10.0%
Do you have to deviate from your plan often?	Yes, considering environmental factors	12.4%	75.8%	11.8%
	Yes, for personal reasons	6.6%	73.7%	19.7%
	No, I always follow the plan meticulously	22.4%	69.4%	8.2%
	It's very rare, but there are deviations from the plan	11.5%	74.7%	13.9%
	I don't have a plan	6.7%	60.0%	33.3%

Source: author's work

Conclusions

According to the research results, it was determined that the distribution of time according to priorities is a problem at all three levels of students. Most of the students manage only to plan the day. They do less planning for the month and the year. Time planning according to priority issues is one of the most important challenges, which leads to an increase in the work to be done promptly and stressful situations.

The culture of using leisure time among students, which can allow energy recovery and stress relief, is less felt. The organization of attendance at lectures-seminars is also problematic. Students have a time gap between lectures, which is not used effectively, and most of the students report that they do not spend time in the library and are busy talking with their friends.

It is also noteworthy that employed students do not receive support from their employers or the university. We consider it important to regulate the issue of employed students at the legislative level. Teaching remotely or with a flexible schedule should be possible at different levels of education.

In addition, students need to use the presented time management models to effectively use their time resources.

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