

## STUDENTS WORKLOAD DURING THEIR STUDY PROCESS: EVIDENCE FROM LATVIA

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### **Abstract**

Purpose: The purpose of the paper is to provide analysis on students' workload in Latvia by researching the differences among study branches and modes of studies, and to find the correspondence of the real study workload to the officially regulated – 40 hours per week.

Design/Methodology/Approach: Analysis are based on the survey results performed in 2013 where 2917 students representing most of the Latvia's higher education institutions provided answers on their study workload. Statistical calculations are used for data analysis.

Findings: The research results reflect that students in general spend less than 40 hours per week on their studies. In most cases devote less numbers to individual work, if compared to the number of hours spent in classes, the study directions of psychology, sociology being an exception. More than 56% of full-time students and 72% of part-time students consider the workload should be increased - in most cases they would prefer having more contact hours. In almost all the higher education institutions students do report on irregular workload that turns to be high in certain weeks and much weaker in others.

Research limitations/implications: The response rate - more than 3% students of higher education institutions and 7% of colleges is comparatively high, the data still doesn't allow providing detailed analysis on each higher education institution and on each study level.

Practical implications: The research results and research methodology can be used by higher education institutions, in order to measure the students workload as well as to gain.

Social implications: Education is one of the most important tools for promoting person's professional and personal development. In this regard – better quality in education will always promote better carrier possibilities for students.

Originality/value: The research draws a framework on the measurement possibilities of students workload. In addition, this is the first research in Latvia, involving more than 2900 respondents' opinions, thus providing a representative sample.

Keywords: Students workload, higher education, Latvia

### **1. INTRODUCTION**

Students workload has commonly been seen as an important variable in the curriculum (Kember, 2004) and as Bowyer (2012) states: student workload is a contributing factor to students deciding to withdraw from their study before completion of the course, at significant cost to students, institutions and society (Bowyer, 2012).

There are number of publications devoted to the issue (e.g. Bowyer, 2012, Centra, 2003, Garmendia, Guisasola, Barragues, Zuza, 2008, Kai, 2009, Kyndt, Struyven, Cascallar, 2011, Zhao, Hoge, 2005, etc.) stating the importance of measuring students workload in study process. At the same time students' workload still is not always taken into account, e.g. when measuring the study quality. Students use to complain on unbalanced workload (Council of Higher Education in Latvia, 2012) and on low efficiency of some classes despite the high workload HSBC Students Research, November 2008).

Garmendia, et. al. (2008) note that the relative student workload is a difficult concept to be defined exactly. Any method which is used to measure a student's effort will be, to a certain extent, a simplified way of estimating the workload.

Recent research work concentrating on the analysis of students studying in the field social sciences in Latvia concluded that students who are forced to work during their studies are negatively affected - very often they refuse to attend the contact hours in higher education institutions (Auers, Rostoks and Smith, 2007).

Taking into account the afore-mentioned, the purpose of the paper is to provide analysis on students' workload in Latvia by researching the differences among study branches and modes of studies, and to find the correspondence of the real study workload to the officially regulated – 40 hours per week. Analysis are based on the survey results performed in 2013 where 2917 students representing most of the Latvia's higher education institutions provided answers on their study workload. The survey was organised online and students in all the higher education institutions were informed through the Students' Councils. Students from 48 higher education institutions participated in the survey. None of the questionnaire were received from six universities and 7 colleges students. There were 2980 questionnaires received, the number of valid questionnaires was 2917. To compare - 1709 students (full-time only) responses were analysed in the Eurostudent IV Latvian survey in autumn 2009.

## **2. STUDENTS' WORKLOAD - THEORETICAL CONCEPTS AND MEASUREMENT POSSIBILITIES**

### **2.1. STUDENTS' WORKLOAD – PRECONDITION FOR THE HIGHER EDUCATION QUALITY**

One of the main motives of higher education institutions is to guarantee a qualitative education.

The ‘‘Communique’ of the Conference of Ministers Responsible for Higher Education in Berlin on 19 September 2003’’ establishes that the quality of higher education has ‘‘proven to be at the heart of the setting up of a European Higher Education Area’’ (Zhentian, 2009). Yet, to this day, there is still no widely acknowledged concept regarding the definition of higher education quality (Kai, 2009) even though there is a number of published books and journal articles on the subject of quality, starting from early 1980s up to now (Doherty, 2008). Furthermore, the complexity of the process increases since the set of quality attributes to be measured and their relative weight is not constant but varies according to the different stakeholder point of view (Tsinidou, Gerogiannis and Fitsilis, 2010). The evaluation of higher education programmes is a complex issue not only due to the number of data necessary for ensuring the evaluating the higher education quality, but also due to the different types of calculations the higher education institutions use e.g. for registering their academic staff or financing available for one programme (Brence, Rivza, 2013).

Educational evaluation has its roots in the classroom, in testing and assessing students. This activity is, of course, still important, but today evaluation activity has expanded into the entire educational system and is used on all levels from individuals, over classrooms, programmes, organizations, fields, and national as well as international levels (Hansen, 2009).

Course evaluations remain the primary method used in higher education to gauge how effectively courses are taught (Remedios and Lieberman, 2008). Besides, evaluation of teaching at universities is traditionally realized in terms of student ratings (Spiel, et.al., 2006). At the same time students' ratings usually are based on asking them certain questions about each particular professor or study programme in general. Often some of the students (chosen by the higher education institution) are interviewed by the evaluation experts. Many of the existing methods of evaluation in higher education are underpinned by a conception of learning that is de-contextualised. As a consequence, many data collection methods do not

address aspects that affect students' learning. This is problematic because the core aim of higher education is to facilitate student learning (Nygaard, 2011). Moreover, very few are the cases when students workload is taken into account for evaluation of the study programmes.

A substantial body of research affirms the common sense notion that involvement in academic work and quality of effort payoff: the more students engage in educationally purposeful activities, the more they learn (McCormick, 2011). Yet, some other authors state that having time" is a precondition for experiencing a manageable workload. When this precondition is fulfilled, the interest of a student and the ability to plan and set priorities play an important role in the perception of workload (Kyndt, Berghmans, Dochy, Bulckens, 2014). These factors do influence students' workload again, raising a question on how much time should be devoted in the classrooms and how much should remain for the out-of-class activities.

At the same time a question still arises – how to measure students academic work and workload.

## **2.2. EVALUATION OF STUDENTS WORKLOAD – RECENT RESEARCH RESULTS**

Several time-use studies in engineering education have shown that students use less time studying than has been allocated in the curricula (Kolari, Savander-Ranne, Viskari, 2008). The same research results apply to students of social sciences (EUROSTUDENT, IV, 2009). At the same time increasing numbers of students are experiencing difficulty adjusting to college (Kreig, 2013).

In this regard the question on how do students feel in their study process and how much do they study is of importance, yet still not answered in detail.

When considering study results one should take into account that gender is implicated in schemas that students have about good study behaviour, how much one is influenced by social norms regarding studying behaviour, and how one evaluates students who do well (Grabill, Asane, et. al., 2005).

The previous studies also suggest that the development of formative assessment systems is a workload that can be managed within the academic work set, both for students and teachers (Romero-Martín, Fraile-Aranda, Lopez-Pastor, Castejon-Oliva, 2014).

Students' workload is a broad issue that can be analysed from different perspectives. The students academic achievements, employability during their studies, socio-economic conditions and other important factors are analysed in a number of research papers (Auers, Rostoks and Smith, 2007; Kember, 2004; EUROSTUDENT, IV, 2009).

In frames of the research concentrating on analysis of aspects related to social and economic conditions and students (EUROSTUDENT, IV, 2009) the following conclusions were drawn:

- in most countries the time budget of students exceeds 40 hours;
- the time resources of students are affected by their age and study field;
- in more than 50% of the countries 40% of students are regularly employed;
- in approximately half of all the countries surveyed 40% of students were very satisfied with their weekly time budget. The highest satisfaction rate was in Denmark, Latvia, the Netherlands and Sweden.

One of the possibilities for finding the actual situation in students' learning, is analysis of their workload devoted to studies during their study process.

Student workload has commonly been seen as an important variable in the curriculum (Kember, 2004). As Bowyer (2012) states: student workload is a contributing factor to

students deciding to withdraw from their study before completion of the course, at significant cost to students, institutions and society (Bowyer, 2012). At the same time Garmendia, et. al. (2008) note that the relative student workload is a difficult concept to define exactly. Any method which is used to measure a student's effort will be, to a certain extent, a simplified way of estimating the workload. One method suggested by the educational researchers is to make the estimate by asking the students via specific questionnaires. An objection usually emerges at this point from teaching staff who are sceptical about the method's reliability because they doubt that the answers given by the students in the questionnaires will be even close to the truth (Garmendia, Guisasola, Barragues and Zuza, 2008). In addition one should take into account that regardless of how much a student generally studies each day, if that student sacrifices sleep time to study more than usual, he or she will have more trouble understanding material taught in class and be more likely to struggle on an assignment or test the following day (Gillen-O'Neel, Huynh, Fuligni, 2013).

In parallel with studies, a lot of extra activities need to be fitted in a student's schedule. Frequently, excessive workload results in poor performance or in failing to finish the studies (Moka and Refanidis, 2010).

Evaluation of students workload is associated with a number of shortcomings that are further analysed in the following chapter.

### **2.3. EVALUATION OF THE STUDENTS WORKLOAD – POSSIBLE SHORTCOMINGS**

Learning outcomes had a large positive effect on student evaluations of instructions, as it should. After controlling for learning outcomes, expected grades generally did not affect student evaluations. In fact, contrary to what some faculty think, courses in natural sciences with expected grades of A were rated lower, not higher. Courses were rated lower when they were rated as either difficult or too elementary. Courses rated at the "just right" level received the highest evaluations (Centra, 2003).

The concepts of evaluating the workload usually don't stress the issue that there are always some courses you have to study hard and some where you devote much smaller amount of time, besides spending more time doesn't always mean spending the time more effectively.

When participating in the surveys on studies workload, students usually stress the fact that not only the actual numbers spent on studies should be taken into account, but the overall quality of lectures also: "Today I had a lecture from 9am to 11am, the first half was merely sitting listening to the lecturer read off slideshows...a different lecturer for the second half who was much better, involved the students and paused so people had time to note down important things" (Extract from a student blog (*First Year, BSc*), NUS/ HSBC Students Research, November 2008).

Bowler (2012) notes that four manageable variables that are observed as influencing adult students' satisfaction with a business course: relevancy of subject-matter, faculty subject-matter competency, faculty classroom management, and student workload (Howell and Buck, 2012). Student workload is a contributing factor to students deciding to withdraw from their study before completion of the course, at significant cost to students, institutions and society (Bowyer, 2012).

Myers and Thorn have found that (a) classroom effort is correlated positively with the relational motive, the functional motive, the participatory motive, and the sycophancy motive, but not at all with the excuse making motive and (b) perceptions of course workload are not correlated at all with any of the five motives (Myers, Thorn, 2013). There is no significant

relationship between perceived workload and students' approaches to learning. For perceived task complexity, it was found that a perceived lack of information is a discouraging factor for inducing a deep learning approach. A lack of information consistently increases students' surface approaches to learning regardless of the induced workload and task complexity (Kyndt, Struyven and Cascallar, 2011).

In 2011 a research was performed on students satisfaction with their time devoted to their studies, by surveying students of engineering sciences. The research was focused on finding the students' opinions on the study process. The data gathered in the survey reflected that students would be willing to have more possibilities for practical training, more study courses that correspond to nowadays requirements and more enthusiastic academic staff members (Ministry of Education and Sciences of the Republic of Latvia, 2013). In this regard the workload was far not the only aspect to be measured in terms of the study programme quality.

Nevertheless, despite the students workload has to be measured, since it directly affects the quality of studies and provides a platform for further analysis. For this reason a research on students' workload was performed in Latvia in 2012 - 2013 and its methodology is described in the next part of the paper.

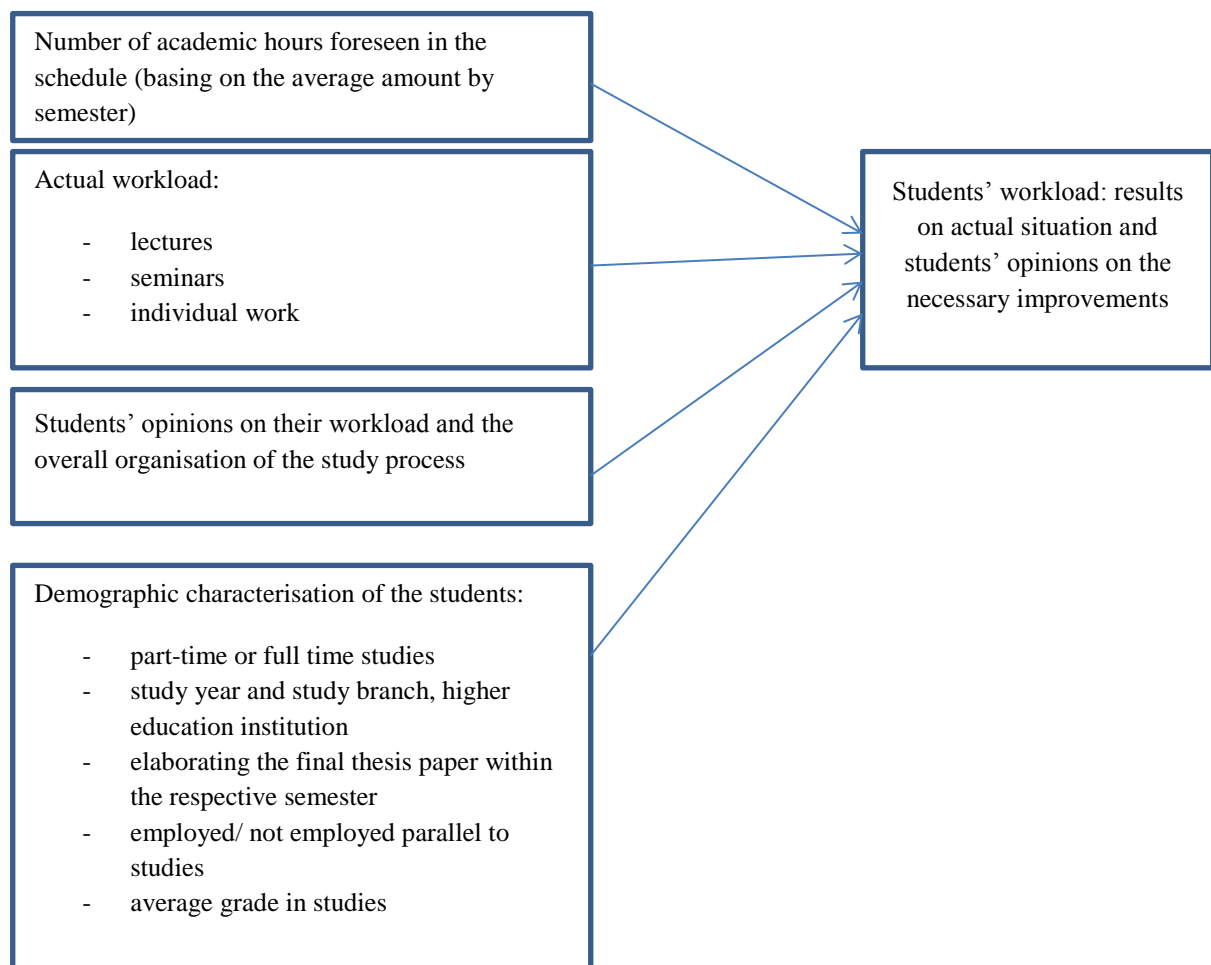
### **3. METHODOLOGY AND STATISTICAL INFORMATION USED**

For performing the research we do take into account the following definitions listed in the Law of Higher Education Institutions of the Republic of Latvia: an academic hour-unit of study time, lasting 45minutes.Credit – study accounting unit corresponding to 40 academic hours (one week of studies). Part-time studies-study type, which accounts for less than 40 credits per academic year and less than 40 academic hours per week. Load during the study process-from total actually attended classes and independent study time devoted to work (academic hours). Full-time studies-study type, which corresponds to 40 credits per academic year and a minimum of 40 academic hours per week.

The research was carried out from September 2012 to January 2013. The survey in general aimed to identify the students' workload during the study process for developing suggestions to improve the quality of studies.

For performing the task a students' questionnaire was elaborated by a team of experts', after careful consideration of the previous research performed, the questionnaires used and the comments received from the representatives of the Students' Councils who also participated in the development of the questions. Before performing the survey two pilot surveys were ensured among 10 students, and basing on the comments made the questions were adjusted. The data gathered in frames of the research were weighted, in order to represent the overall situation in the country.

The questionnaire was prepared in Latvian. It was possible to fill the questionnaire with a dictionary or an interpreter for students who fully yet not speak Latvian. The following conceptual framework was used for the questionnaire:



**Figure 1.** Conceptual model of the research.

The questionnaire was inserted in the home page of the Council of Higher Education (The questionnaire elaborated for measuring the students' workload, 2012) and information on the possibility to fill in the questionnaire was sent to all the higher education institutions in Latvia. This approach was chosen, following the Eurostudent IV survey in Austria, the Netherlands and Hungary.

According to data collected by the Ministry of Education, in October 2012, there were approximately 2 million people in Latvia in 2012 and 473 students per 10 000 inhabitants who studied in 954 education programs. There are 6 universities, 13 higher education institutions established by state, 14 higher education institutions established by juridical persons, 17 state colleges and 8 colleges, established by juridical persons, besides there are three branches of foreign higher education institutions (Ministry of Education and Sciences of the Republic of Latvia, 2013).

Students from 48 higher education institutions participated in the survey. None of the questionnaire were received from six universities and 7 colleges students. There were 2980 questionnaires received, the number of valid questionnaires was 2917. To compare - 1709 students (full-time only) responses were analysed in the Eurostudent IV Latvian survey in autumn 2009.

Since in some higher education institutions only a small number of questionnaires were received, the following table indicates the number of respondents (n), the number of full-time



and part-time students in the total number of the survey and the response rate by the higher education institutions type.

Table 1

**Number of students and level of response in the research, 2012**

	State higher education institutions, inter alia universities	Higher education institutions established by juridical persons	Higher education institutions, total	State colleges	Colleges, established by juridical persons	Colleges, total
<b>Full-time studies</b>						
Number of students	49133	12595	61728	5531	1388	6919
Number of valid questionnaires	1600	393	1993	406	69	475
Response, %	3,3	3,1	3,2	7,3	5,0	6,9
<b>Part-time studies</b>						
Number of students	12491	7513	20004	1557	4254	5811
Number of valid questionnaires	173	171	344	23	142	165
Response, %	1,4	2,3	1,7	1,5	3,3	2,8
<b>Full-time and part-time studies, total</b>						
Number of students	61624	20108	81732	7088	5642	12730
Number of valid questionnaires	1773	564	2337	429	211	640
Response, %	2,9	2,8	2,9	6,1	3,7	5,0

*Source: Author's calculations based on the project „Evaluation of Higher Education Institutions Study Programmes and Proposals for Quality Improvement”*

The number of valid questionnaires was completed by 73 percent of women and 27 percent men (their share in the total number of students were 59 and 41 percent). The proportion is not significantly different from the general proportion of students studying at the higher education institutions of Latvia.

The survey respondents had to report the average load per week during the semester, which is broadly consistent with the time budget used in the so-called "typical week of the semester." Load was measured in the study process in academic lessons (45 minutes). Eurostudent IV students' time budget analysis unit was used for astronomical hour, explaining that "students are required to report personal study time in clock hours, and taught studies—in clock hours, even though course hours may differ from this format". Yet, taking into account that in other research papers academic hours are used (NUS/ HSBC, GFK, 2008), the decision to concentrate on the academic hours was taken.

In frames of the survey students evaluated an average load per week in the fall semester (not in the previous week, as many other research papers have practiced). In their replies to the question "Do you elaborate graduation (qualification, bachelor's, master's. Etc.) work and / or whether you practice or are on leave?", 23% of the respondents replied affirmative and in accordance with the methodology gave answers about the previous semester.

The research results report that students' spend 18 - 35 academic hours per week on their studies on average, the number of hours spent on studies is smaller in part-time studies, if compared to the full-time studies, and, in addition, the number of hours devoted to studies decreases as the level of studies increases. More detailed data analysis is reflected in table 2.

Table 2

**Full-time and part-time student load by study program levels (the average number of teaching hours per week and the percentage of the total load in the study process), 2013, n = 2468**

Study branch	Number of hours foreseen in the schedule	Total workload	Inter alia by types of workload	
			classes attended	independent study work
All the full time study branches total (N=68659), inter alia	22,1	36,3	20,6	15,7
Education(N=3293)	26,1	41,0	22,3	18,7
Arts(N=3737)	25,5	38,5	22,8	15,7
Religion and theology(N=270)	18,7	29,4	15,1	14,4
History and philosophy(N=606)	18,9	36,6	18,3	18,4
Translation(N=979)	18,2	29,1	17,8	11,3
Psychology(N=1051)	21,0	47,6	20,2	27,4
Sociology, political science and anthropology (N=1104)	14,4	27,7	13,5	14,2
Economics(N=4239)	21,8	32,3	21,2	11,1
Information and communication sciences (N=2701)	18,3	33,9	18,7	15,2
Management, administration and management of immovable properties(N=10149)	20,6	31,7	18,5	13,2
Law(N=200)	17,1	30,1	15,8	14,4
Wildlife sciences(N=539)	20,1	28,6	19,7	8,9
Geography and earth sciences(N=353)	21,6	36,4	18,7	17,6
Chemistry, chemistry technologies and biotechnology(N=768)	23,5	38,5	22,2	16,2
Physics, mathematics and statistics(N=621)	21,5	34,9	20,8	14,1
Social welfare(N=1427)	24,7	35,6	24,3	11,3
Hotels and restaurants service and organisation of tourism and recreation (N=1699)	23,4	31,9	21,1	10,8

\* bachelors' study programmes, also the 2nd level higher education

*Source: Author's calculations based on the project „Evaluation of Higher Education Institutions Study Programmes and Proposals for Quality Improvement”*

For more detailed data analysis, study workload in frames of different study directions was analysed (see Appendix 1).



Table 3

**Distribution of students by average workload (number of academic hours per week),  
2013, n = 2977**

	Ways of students workload		
Average of weekly contact hours	Classes foreseen in the schedule	Classes actually attended	Independent study work
<b>Full-time studies (N=68659)</b>			
Total number of students, inter alia	100,0 %	100,0 %	100,0 %
workload of 15 hours and less	19,3 %	24,3 %	66,7 %
workload of 16 hours and more	80,7 %	75,7 %	33,3 %
<b>Part-time studies (N=25815)</b>			
Total number of students, inter alia	100,0 %	100,0 %	100,0 %
workload of 15 hours and less	86,4 %	87,6 %	61,7 %
workload of 16 hours and more	13,6 %	12,4 %	38,3 %

The data reflect that in general students don't devote 40 academic hours on their studies, with the exception of students in health care, approximately 7 hours are missed on average. Therefore we cannot speak on the trend that those students having higher number of contact hours foreseen in the schedule are devoting more hours to their studies in total.

Table 4

**Students opinion on the necessary changes in workload, full-time/part-time studies,  
2013, n = 2977**

	Number of responses	%
<b>Full-time studies</b>		
Total answers	<b>2468</b>	<b>100%</b>
It is necessary to increase	1386	56,6 %
It is necessary to decrease	916	37,0 %
Not necessary to change	166	7,0 %
<b>Part-time studies</b>		
Total answers	<b>509</b>	<b>100%</b>
It is necessary to increase	364	72%
It is necessary to decrease	112	22%
Not necessary to change	33	6%

The number of academic hours spent on the studies may be explained with the fact that many students are employed, inter alia in full-time positions, during their studies. Although there is no exact statistical data available on how many students are employed while studying, the trend seems to be considerable, leading to the supposition that the workload could be bigger in case the students were not employed. Yet the necessity to work is often correlated with the necessity to gain income.

## CONCLUSIONS

Students' workload is an important aspect for measuring the quality of higher education study programmes, yet often it is not fully taken into account when evaluating the higher education.

There is not common definition on students' workload, in some cases it is measured in frames of academic hours in other cases astronomic hours are used. According to the Latvian legislation, the students workload should correspond to 40 academic hours per week.

Scientific literature proves that students report their study workload during the previous week, yet also the number of average hours spent in frames of one semester is taken into account. The number of extra activities may also be a significant tool for measuring students' workload. Besides, it may be considerable to take into account not only the classes the students have attended, but the additional activities performed during the study period as well. Contents of information provided in the classes is essential for measuring study quality, yet not often measured.

The total number of average hours devoted for studies in Latvia in 2012 was 33,10 academic hours per week with the standard deviation of 2,97. The average number lessons (academic hours) foreseen in the schedule were 21,59 per week with the standard deviation of 2.87. So the students' schedules are comparatively intensive, yet more individual work is required.

According the study results, the highest total students workload is reported in Education and Psychology, and the lowest in the following sectors: Religion and theology, Translation, Sociology, political science and anthropology, Management, administration and management of immovable properties, Law.

56,6% of the students studying full-time and 72% of students studying part-time consider the workload should be increased – first years' students of the bachelors' programmes being the most willing for their workload increase.

The data reflect that students don't devote 40 academic hours on their studies, but 7 less on average. The exception is the study branches of health care,

Higher education institutions should follow the total workload of students during their study process, for maintaining and increasing the quality of study programmes they offer and for sustaining high level of education they offer.

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## REFERENCES

1. Auers D., Rostoks T., Smith K., (2007) Flipping Burgers or Flipping Pages? Student Employment and Academic Attainment in Post-Soviet Latvia. *Communist and Post-Communist Studies*, Vol.40, 477-491.
2. Bowyer, K. (2012). A Model of Student Workload. *Journal of Higher Education Policy & Management*, Vol. 34 no. 3, 239-258.
3. Brence, I., Rivza, B. (2012). Quality Evaluation of Higher Education Programmes: Process and Challenges in Latvia. *Proceedings of the MakeLearn Conference Knowledge and Learning: Global Empowerment* (CD format).
4. Centra, J.A. (2003). Will Teachers Receive Higher Student Evaluations by Giving Higher Grades and Less Course Work? *Research in Higher Education*, Vol. 44, no. 5, 495-518.
5. Doherty, G. (2008). On Quality in Education. *Quality Assurance in Education*, Vol. 16, no. 3, 255-265.
6. Garmendia, M., Guisasola, J., Barragues, J. I., Zuza, K. (2008). Estimate of Students' Workload and the Impact of the Evaluation System on Students' Dedication to Studying a Subject in First-Year Engineering Courses. *European Journal of Engineering Education*, Vol. 33, no. 4, 463-470.
7. Gillen-O'Neel, C., Huynh, V., Fuligni, A. (2013). To Study or to Sleep? The Academic Costs of Extra Studying at the Expense of Sleep. *Child Development*, Vol. 84, issue 1, pp. 133-142.

8. Grabill, K. M., Lasane, T. P., Povitsky, W.T.; Saxe, P., Munro, G. D., Phelps, L.M., Straub, J. (2005). Gender and Study Behavior: How Social Perception, Social Norm Adherence, and Structured Academic Behavior are Predicted by Gender. *North American Journal of Psychology*. Vol. 7 Issue 1, pp. 7-24.
9. Hansen, H. F. (2009). Educational Evaluation in Scandinavian Countries: Converging or Diverging Practices? *Scandinavian Journal of Educational Research*, Vol. 53, no. 1, 71-87.
10. Howell, G. F., Buck, J. M. (2012). The Adult Student and Course Satisfaction: What Matters Most? *Innovative Higher Education*, Vol. 37, no. 3, 215-226.
11. Kai, J. (2009). A Critical Analysis of Accountability in Higher Education: Its Relevance to Evaluation of Higher Education. *Chinese Education and Society*, Vol. 42, no. 2, 39-51
12. Kember, D. (2004). Interpreting the Student Workload and the Factors Which Shape Students' Perceptions of Their Workload. *Studies in Higher Education*, Vol. 29, no. 2, 165- 84.
13. Kolari, S., Savander-Ranne, C., Viskari, E.-L. (2008). Learning Needs Time and Effort: A Time-Use Study of Engineering Students. *European Journal of Engineering Education*. Vol. 33 Issue 5/6, pp. 483-498.
14. Kreig, D. B. (2013). High Expectations for Higher Education? Perceptions of College and Experiences of Stress Prior to and Through the College Career. *College Student Journal*, Vol. 47 Issue 4, pp. 635-643.
15. Kyndt, E., Berghmans, I., Dochy, F., Bulckens, L. (2014). Time Is Not Enough." Workload in Higher Education: A Student Perspective. *Higher Education Research and Development*, Vol. 33, No. 4 pp. 684-698.
16. Kyndt, E., Struyven, K., Cascallar, E. (2011). The Perception of Workload and Task Complexity and Its Influence on Students' Approaches to Learning: a Study in Higher Education. *European Journal of Psychology of Education*, Vol. 26, no. 3, pp. 393-415.
17. McCormick, Alexander C. (2011). It's about Time: What to Make of Reported Declines in How Much College Students Study. *Liberal Education*, Vol. 97 No. 1 pp. 30-39.
18. Ministry of Education and Sciences of the Republic of Latvia (2013), Retrieved April 2, 2013, from <http://www.izm.gov.lv>
19. Moka, E., Refanidis, I. (2010). Towards Intelligent Management of a Student's Time. *Artificial Intelligence: Theories, Models and Applications*, no.6040, 383-388.
20. Myers, S.A., Thorn, K (2013). The Relationship Between Students' Motives to Communicate With their Instructors, Course Effort, and Course. *College Student Journal*. Vol. 47, no. 4, 485 – 488.
21. NUS/ HSBC, GFK (2008). Students Research, Students Contact Hours Mini Report, Retrieved February 18, 2013, from <http://www.nus.org.uk/.../Contact%20hours%20mini-report.doc>
22. Nygaard, C., Belluigib, D.Z. (2011). A Proposed Methodology for Contextualised Evaluation in Higher Education. *Assessment & Evaluation in Higher Education*, Vol.36, no. 6, 657-671.
23. Remedios, R., Lieberman, D. A. (2008). I Liked Your Course Because You Taught Me Well: The Influence of Grades, Workload, Expectations and Goals on Students' Evaluations of Teaching. *British Educational Research Journal*, Vol. 34, no. 1, 91-115.
24. Romero-Martín, R., Fraile-Aranda, A., Lopez-Pastor, V., Castejon-Oliva, F. (2014). The Relationship Between Formative Assessment Systems, Academic Performance and Teacher and Student Workloads in Higher Education. *Infancia y Aprendizaje*. Vol. 37 Issue 2, pp. 310-341.
25. Spiel, C., Schober, B., Reimann, R. (2006). Evaluation of Curricula in Higher Education: Challenges for Evaluators. *Evaluation Review*, Vol. 30, no. 4, 430-450.
26. The Parliament of the Republic of Latvia. Law of the Higher Education Institutions, in Latvian (1995). *Latvijas Republikas Saeima. Augstskolu likums (speka no 01.12.1995.) likums ar grozījumiem, kas izdariti līdz 15.11.2012.* Retrieved January 22, 2013, from <http://www.likumi.lv/doc.php?id=37967>
27. The Questionnaire Elaborated for Measuring the Students' Workload, in Latvian (2012). Retrieved March 7, 2013 from [http://www.aip.lv/ESF\\_studejoso\\_noslodzesaptauja\\_paligmaterials.htm](http://www.aip.lv/ESF_studejoso_noslodzesaptauja_paligmaterials.htm)
28. The Research on Students' Satisfaction (Studentu apmierinātības pētījums), in Latvian (2011). Retrieved January 1, 2013, from [http://izm.izm.gov.lv/upload\\_file/Izglitiba/Augstaka\\_izglitiba/031011/Petijuma\\_rezultati.pdf](http://izm.izm.gov.lv/upload_file/Izglitiba/Augstaka_izglitiba/031011/Petijuma_rezultati.pdf)
29. Tsinidou, M., Gerogiannis, V., Fitsilis, P. (2010). Evaluation of the Factors that Determine Quality in Higher Education: An Empirical Study. *Quality Assurance in Education*, Vol. 18, no. 3, 227-244.
30. Zhao, Y., Hoge, J. D. (2005). What Elementary Students and Teachers Say about Social Studies Social Studies, Vol. 96 no. 5 p. 216.
31. Zhentian, L. (2009). Three Cognitive Issues Related to Evaluation of Institutions of Higher Education. *Chinese Education and Society*, Vol.42, no. 2, 58-62.