

SYLLABUS AND LEARNING OUTCOMES: A CASE STUDY OF MEDICAL COLLEGE STUDENTS' AND LECTURES' EXPERIENCE

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ABSTRACT

Syllabus is an important document for higher education institutions. It is a normative requirement for the assessment of the quality and facilitates understanding between teachers and students on the course and requirements. An important section of syllabi is the learning outcomes that characterise what students need to be able to demonstrate after completing the course. The aim of this research is to find out to what extent students read syllabi, to find out students' opinions about the learning outcomes to be achieved specified in the syllabus, as well as to analyse how lecturers introduce students to the content of the syllabus. The research consists of three stages: 1) compilation of statistics and analysis on the number of readings of syllabi; 2) analysis of students' self-assessment of the learning outcomes to be achieved; 3) survey of lecturers on the process of the introduction of syllabi. In the results, it was concluded that in the 2nd academic year there are more students who have read the syllabi than in the 1st and 3rd academic year. It was discovered that 64% of students agree with the statement that the lecturer introduces the requirements of the study course and 56.5% of students agree that at the end of the study course they have achieved the learning outcomes specified in the syllabus. The results of lecturers' surveys indicate that the vast majority 78.8.5% are convinced that only a few read the syllabi, 41.2% use the presentation, 5.9% create a separate report to introduce students to the syllabus and learning outcomes and 60.6% devote around 10 minutes to it. According to the obtained results, it would be necessary to encourage lecturers to devote more time when introducing students to the syllabus and to inform the lecturers about the feedback on the reading statistics of their syllabi.

Keywords: *information methods, learning outcomes, reading statistics, self-assesment, syllabus*

Introduction

In each study course in higher education, lecturers should provide asyllabus, also sometimes called a study course description, which provides the necessary information regarding the organisation and requirements of a study course. Lecturers should invest a lot of time and be patient

in writing qualitative syllabi. The syllabi for each study year should be realised by lecturers. There is an assumption that students do not read syllabi, and lecturers complain that they develop them in vain. Therefore, the research has a set goal – to find out to what extent students read syllabi. There are relatively few topics in research where authors have studied whether students read syllabi. Many authors have looked at syllabi in theory from the point of view of design, development and its informative sections (Caganova, 2008; Eng et al., 2017; Sabbah, 2018). DiClementi and Handelsman (2005) are among the few researchers to investigate students' perceptions of the class and the lecturer based on their reactions to the syllabus.

It is assumed that students are not interested in reading syllabi. This is exacerbated by the fact that statistics on reading are not always easy to record.

However, research available for statistics on the number of views has focused on the results by analysing which sections of syllabi are viewed more, rather than whether students read syllabi in general. Meuschke et al. (2002) found that the most important sections that students read were the grading system, namely how the final grade is formed. Similar observations to Meuschke et al. (2002) were also obtained by the author Zucker (1992), who saw that students' interests were the dates of mid-term tests, the number of examinations and course topics (Zucker, 1992). The authors Marcis and Carr (2003) concluded that the least important sections for students were the academic integrity system, information on additional literature, basic information about the course such as the number of contact hours, and the amount of credit in the course. Previous studies had indicated that the two syllabus elements most important to students were in the area of "student assignments-explanation" and "instructor information" (Farrow & Leathem, 2021).

In turn, the authors Calhoun and Becker (2008) conducted a study to deduce the time at which students read syllabi. They concluded that almost half of the students in the first administration looked at their syllabus less than two hours before class. Six weeks later, nearly half of the students looked at the syllabus the day prior.

Research problem – the assumption that students do not read syllabi and lecturers are therefore not interested in updating and carefully developing them. Lecturers insist that the demands for elaborated syllabi are only satisfied by study field evaluation experts and not by students. The contribution of the research would reveal the real situation as to how students read syllabi and whether the lecturers' assumptions are true. The innovation in the field of research is that this type of study has not been carried out until now, because it is difficult to obtain statistics on the

number of readings without a relevant internal system that records each student's step in the system (for instance – Moodle).

In the following chapters, the authors will define what the syllabi is and describe its categories, will analyse the most successful methods and techniques for drawing students' attention to the syllabus, and analyse the importance of learning outcomes.

Syllabi

Over the years, the authors have agreed on 4 categories for how a syllabus could be categorised according to its application. In the first case – the syllabus serves as a contract. As the first document is often distributed to a class, the course syllabus has long been the standard communication tool in higher education to introduce students to courses (Bowers-Campbell, 2015; Farrow & Leathem, 2021). In the second case – serves as a permanent record, in the third case – serves as an aid to student learning and in the fourth case – cooperation with the course lecturer (Calhoon & Becker, 2008), Fornaciari & Dean, 2014).

In the first case, the syllabus is also sometimes called a “course handbook”, course guide, and description. Instructors have sometimes referred to syllabi as being a “contract”, using it to serve as an official university document to set expectations and requirements for the class (Bowers-Campbell, 2015; Farrow & Leathem, 2021; Fornaciari & Dean, 2014; Katsampoxaki-Hodgetts, 2022; Parkes & Harris, 2002).

In the second case, the syllabus can be explained as a tool for formal requirements. A power tool to reflect the content of the study course, as well as to determine and measure learning outcomes. With this approach, the syllabus is understood as a tool that is likely to be useful for accreditations, and when students wish to transfer credits from one institution to another, the syllabus may be used to help determine whether or not the request is appropriate (Fornaciari & Dean, 2014; Parkes & Harris, 2002).

The literature has been explored in addressing what to include or exclude in the document (DiClementi & Handelsman, 2005; Parkes & Harris, 2002). The syllabus should delineate the responsibilities of students and of the instructor for various tasks, including attendance, assignments, examinations and other requirements (Parkes & Harris, 2002). With such an agreement, the student can get acquainted with the planned course and its requirements and decide whether to choose to take the course or not (Parkes & Harris, 2002). This is especially convenient for students choosing elective courses.

In the third case, the syllabus is a useful tool for the student during the study process. For example, a guideline that the student could use during independent study outside the classroom. It is useful to include various

instructions, for example, on the observance of academic integrity, the development of scientific language, the need to get to the lecture on time. A tool that develops a student's self-management skills, introduces study strategies, as well as allows them to be aware of errors typically made by students and sources of where to look for help (Habaneck, 2005; Parkes & Harris, 2002). The syllabus should be "not only an effective map of your course's nuts-and-bolts logistics, but also an invitation to actively engage in the learning process" (Gannon, n. d.). Perlman and McCann (1999) reported that the majority of students (72%) they surveyed desired a detailed syllabus.

In the fourth case several authors define a newer approach to interpreting the syllabus and it is a collaboration (Fornaciari & Dean, 2014; Hess, 2008; Kaplan & Renard, 2015; Weimer, 2002).

The direction of the present and the future is that the syllabus is seen both as a communication and collaboration tool. The learning process becomes a partnership between the lecturers and the student, and thus student responses to the learning process become an integral, and not incidental, part of the entire system (Fornaciari & Dean, 2014). Some lecturers feel that it is their right and responsibility to make all decisions about course content and procedures, and others believe that students should always provide input into such matters (Parkes & Harris, 2002). Hess (2008) supports student collaboration; he only does so with upper-level students and does not allow first-year students' input into the syllabus design, believing that first year students are simply not ready to participate effectively in this way. The author Diamond (1998) has suggested preparing a student manual to supplement a syllabus rather than trying to incorporate too much information in the syllabus alone (Diamond, 1998).

One of the proposed methods for influencing student learning through a course description is to create a learning-centred document. A learning-centred document diverts attention from presenting content (student teaching) to student learning (Cullen & Harris, 2009).

The authors agree that when a student opens a file, they will often evaluate it visually in the first place, and if it exceeds the time allotted for reading or the intended effort, it will not be read. Therefore, the amount of information and the way it is presented should be optimally balanced. The authors support the notion that nowadays it is not sufficient to have a syllabus as a formal agreement for self-directed learning, mutual evaluation and a study-centred approach for students. It needs to be made more attractive to students; students need to be involved in the development process, as discussed by the authors of the fourth case.

Presentation of syllabi

Despite its importance, the presentation of the syllabus has been virtually ignored in research (Thompson, 2007). However, student development literature and in particular, Generation Y age cohort literature, indicates that information processing norms may increasingly degrade students' ability to use course syllabi for their intended purpose (Fornaciari & Dean, 2014).

Lecturers often strive to create a hospitable environment to make students feel welcome on the first day of class; they must also establish rules and procedures that illustrate their authority. Sometimes, teachers who look gentle, polite and concerned at first glance can appear tyrannical when presenting the syllabus (Singham, 2005). For the area of "student assignments-explanation", instructors should illustrate all major assignments in the syllabus with course grade weighting, due dates, and have the assignments made available to students for accessing at any time (outside of tests) (Farrow & Leathem, 2021).

The author Thompson (2007) emphasises that the first piece of advice for lecturers is to take the time to get to know each other and encourage students. A good method is to emphasise how useful and interesting the study course will be and then move on to the syllabus. One teacher explained, "I try to use 'our' and 'we' a lot ... I use 'we' instead of 'you'" in the presentation. When it comes to the requirements that will be mandatory during the course, it is recommended to put such in bold font, as well as to manipulate with the tone of voice. After the presentation of the requirements, it is definitely desirable to emphasise that the requirements will be in place for everyone, so that students do not have doubts regarding their abilities. Tone of voice was critical in striking a balance between being a strict authoritarian and someone students look forward to working with during the semester. Of course, students' reactions must also be monitored in order to adapt to the situation. The presentation itself is important. Teachers should highlight key aspects in the syllabus rather than read the entire thing. The average length of the presentation of the syllabus was 26.6 minutes. Students clearly paid more attention during the presentation if teachers used classroom presentation technology. At the same time, the teacher delivers the information orally by emphasising key points in the document (Thompson, 2007).

Student-teacher relationships have been shown to have a strong impact on academic success. In syllabi, the lecturer must express enthusiasm for the field of content to be acquired (Young-Jones et al., 2021).

The authors conclude that whatever method the teacher chooses, it is based on pedagogical explanatory work in order to emphasise what is more important to students, justify its necessity and encourage it.

Learning outcomes

As it is known, the learning outcomes occupy an important place in the syllabus. In this chapter, it is important to explore students' perceptions and use of learning outcomes.

By explicitly building a curriculum based on what students should be able to do with their knowledge, the learning outcomes approach helps ensure that students and the faculty can see what the point of the course is (Battersby, 1999).

The use of learning outcomes to define courses and programmes has resulted in the loss of the student-centred idea, because for a student to act student-centred, they would need to be able to choose their own learning opportunities, resources and time required to achieve their learning outcomes. Once students realise that only the learning described by learning outcomes is to be assessed, they only focus on demonstrating this learning (although not necessarily achieving this learning (Ian, 2011).

In the research of Brooks et al. (2014), 81% of students agreed (either agreed or strongly agreed) that learning outcomes are useful learning aids, with only approximately 7% disagreeing. Regarding the students' answer to the question 'when are learning outcomes most useful', nearly half of the sample, 46% of students, said 'when revising'. Almost half of the students, 49%, agreed that learning outcomes could only be fully understood at the end of a module when the total course or module content was known. Students want learning outcomes to help guide their learning; they do not want to be restricted by them, nor do they want to be confused by poorly written or ambiguously worded outcomes (Brooks et al., 2014).

Singham (2005) argues that lecturers have professional responsibilities to create courses where learning outcomes have been defined and well considered.

The authors agree that the majority of students' learning outcomes can still only be fully understood and assessed when the study course has been completed. This suggests that learning outcomes should be written in a way that students can understand and explain as pedagogically desirable methods at the beginning of the course.

Method

The study was carried out among The Red Cross Medical College of Riga Stradiņš University (hereinafter – College) in Riga, Latvia. The College implements the 1st level professional higher education field of study (European Qualifications Framework level 5) – “Health Care”, which includes five study programmes 1) Treatment (with the qualification – physician assistant), 2) Treatment (with the qualification – emergency medical physician assistant),

3) Therapeutic massage (with the qualification – massage therapist), Nursing (with the qualification – nurse) and Pharmaceuticals (with the qualification – pharmacist assistant). 698 students studied in 2018–2019 in total in the College, 645 studied in 2019–2020, 613 studied in 2020–2021, and 533 studied in 2021–2022.

The empirical study was developed through a descriptive analysis. The study at the College was conducted in 3 phases from November 2021 to January 2022. The quantitative data analysis software *MsExcel* 2016 was applied for data processing.

In the first stage, the research question envisages determining the students' activity in reading syllabi. Statistical data from the College's internal e-learning platform *Moodle* were collected. The number of students that read the syllabi was counted manually. The compilation of statistics was performed for the academic year 2021-2022 autumn semester (1st semester, 3rd semester and 5th semester) in five 1st professional higher study programmes of the College. The e-learning platform *Moodle* offers to obtain such statistics by manually opening each study course separately, selecting the section *more*, selecting the section *reports*, and selecting the *Course participation* option. In the query *activity*, the *Module* specifying the *syllabus*, in the *show* menu specifying the *student* and in the menu, *all actions* specifying the *view*. A total of 142 study courses were evaluated. The results were obtained: 1) on how many students read the syllabi. The results were expressed as a percentage of the number of all students in the programme; 2) it was analysed whether there are differences in the syllabi read by first, second and third year students; 3) the reading of the syllabi was analysed according to the conformity of the study course to the branch of science. It should be noted that all the syllabi, regardless of the start date of the study course, were posted on the e-platform *Moodle* in the last week of August 2021, which provided students with access to the content of the study courses. The results of the number of readings were compiled in November of the academic year 2021 for the period from August 2021.

In the second stage, the results of the student survey over four years were analysed from 2018 to 2022. The purpose of the survey was to find out students' thoughts about how lecturers introduce students to syllabi and the learning outcomes. Students had to give an opinion on the following statements: 1) 'at the beginning of the course the lecturer introduced the required acquisition of knowledge, skills, competencies (clear learning outcomes)' and 2) 'during the study course I achieved the learning outcomes (knowledge, skills, competences)'. At the end of each semester, students filled in study course questionnaires, in which the competencies of the teaching staff were assessed. 76 lecturers have been evaluated on average in four years (both academically elected and guest lecturers), but

the average number of students who have evaluated lecturers in four years has been 54%. In the autumn semester of the academic year 2018–2019 and 2019–2020, the surveys were distributed in person in the auditoriums at the end of the study courses, which provided a larger number of respondents. Since the spring semester of the academic year 2019–2020, the surveys have been distributed electronically using the *Google Forms* survey tool. The results were summarised within one month of each survey.

In the third stage, a survey of lecturers was conducted in order to find out the opinion of lecturers about the methods they use in their practice by introducing students to the syllabus. The survey was distributed in December 2021. The response rate was 51%.

The chosen research instruments are suitable because the best tool for obtaining syllabi reading statistics is the internal system Moodle. The survey tool has been chosen because it covers a wide audience and it was possible to analyse results in 3 years.

Results and discussion

The analysis of the first phase of the study included a compilation of statistics to find out how many students read syllabi. The results are available in Table 1. The aim of data analysis is not to analyse results per study programme, but the total statistics of syllabi reading. To evaluate the statistics, reading statistics are further divided into 10 categories (0–10%, 10–20% ... 80–90%, 90–100%).

Table 1. Statistics on the number of syllabi readings (as a percentage of the total number of students in the course, programme)

Number of syllabi	Study courses evaluated	Category
13	142	00.00% - 10.00%
41	142	10.01% - 20.00%
23	142	20.01% - 30.00%
26	142	30.01% - 40.00%
17	142	40.01% - 50.00%
10	142	50.01% - 60.00%
8	142	60.01% - 70.00%
2	142	70.01% - 80.00%
2	142	80.01% - 100.00%

The categories with the highest reading activity stand out at 10–40%. According to the research question, it must be concluded that the statistics on the number of readings are relatively low. The results are in line with the research of other authors on the low activity of students reading the syllabi.

Table 2 shows whether there are differences in syllabi read by students of the first, second and third academic year. As there are different numbers of study courses in each academic year, for comparative analysis between academic years, study courses are expressed in equal parts of 100%. For a better visual view, a grey colour has been used for table No. 2. Most students read syllabi in the category 10–20% in both the 1st, 2nd and 3rd academic year. There is no difference. The only difference worth emphasising is that students studying in the 2nd academic year read syllabi more, as evidenced by the categories of 80–100% compared to 1st and 3rd year students. In general, it cannot be said that students are more responsible in the first year of study, because everything is new to them, nor can it be said that students in the 3rd year are more experienced and therefore read syllabi more.

Table 2. Statistics on the number of readings of syllabi by academic year (in categories from 0–100%)

Academic year	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Courses expressed in %	Number of courses
1st academic year	2.33%	30.23%	13.95%	20.93%	18.60%	9.30%	4.65%	0.00%	0.00%	0.00%	100.00%	43
2nd academic year	13.11%	29.51%	13.11%	14.75%	8.20%	8.20%	8.20%	1.64%	1.64%	1.64%	100.00%	61
3rd academic year	10.53%	26.32%	23.68%	21.05%	10.53%	2.63%	2.63%	2.63%	0.00%	0.00%	100.00%	38

The authors wanted to find out whether syllabi are read more or less depending on the course's affiliation with the field of science. The results are available in Table 3.

Table 3. Statistics on the number of readings of syllabi by fields of science (in categories from 0–100%)

Branch of science	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Number of courses
Social science courses	3.33%	40.00%	13.33%	13.33%	6.67%	13.33%	10.00%	0.00%	0.00%	0.00%	30
Natural science courses	0.00%	12.50%	12.50%	37.50%	12.50%	0.00%	12.50%	0.00%	0.00%	12.50%	8
Humanities courses	0.00%	40.00%	0.00%	20.00%	20.00%	20.00%	0.00%	0.00%	0.00%	0.00%	5
Medical and health science courses	19.19%	26.26%	16.16%	16.16%	11.11%	5.05%	4.04%	2.02%	1.01%	0.00%	99

Syllabi belonging to medical and health sciences are most read in the category 0–50%, while syllabi of social science courses are most often read in the category 10–40%, but for other branches of sciences, there is no logical explanation. There are no differences regarding which branch of science the study course belongs, in order to claim that syllabi are therefore read more.

In the second stage of the research, students' self-evaluation was analysed; the results of surveys at the four-year interval is available in table No. 4. The aim was to find out how students evaluate the learning outcomes. See table 4.

Table 4. Students' self-assessment of the learning outcomes

Academic year	Completely agree (%)	Rrather agree (%)	Neither agree nor disagree (%)	Rather disagree (%)	Completely disagree (%)	Can't answer, the course is recognized in previous education (%)	Number of lecturers evaluated (number) *	Number of students who have assessed (% of all students)
<i>Statement:</i> During the study course I achieved the learning outcomes (knowledge, skills, competencies) specified in the syllabus								
2021./2022.fall semester	55	21	8	2	2	12	78	42.1
2020./2021.	58	20	7	2	2	11	82	55.1
<i>Statement:</i> At the beginning of the course the lecturer introduced with the information and learning outcomes indicated in the syllabus								
2019./2020.	69	19	6	3	1	2	65	54.8
2018./2019.	59	24	9	3	1	4	78	64.7

* *Lecturers and guest lecturers*

It must be concluded that in each of the study years the overwhelming majority of respondents – students, have indicated that they fully agree with the given statements. The second popular answer is 'rather agree', which positively reflects both the students' self-esteem about their knowledge and the contribution of the lecturers. It can be concluded that these results also show that students are confident in their opinion, because if this were not the case, they would be able to state 'I can't answer'. It makes us think that despite the fact that the reading statistic is relatively low, students are somehow acquainted with the content and learning outcomes. From this it can be concluded that lecturers play an important role.

In the third stage of the research, a questionnaire for lecturers was developed with the aim to summarise the lecturers' practice in providing information to students about the organisation of the study course, introduction to the syllabus and the learning outcomes. The survey was distributed electronically using the survey tool *Visidati.lv*.

78.8% of lecturers are convinced that only a few students read syllabi, which substantiates the problem raised in the study. Regarding the results on whether the lecturers show students where the syllabus is available on

the e-platform *Moodle*, it should be concluded that the lecturers' practice is shared (location is the same from both the lecturer's and student's profile). 36.4% of lecturers indicate that they always show it, 36.4% of lecturers indicate that they do not show it because the syllabus is available in *Moodle*, 15.2% of lecturers sometimes show it, but 12.1% of lecturers indicate that they do not show it because they are not sure where the syllabus is available on the e-platform *Moodle*. The anonymity of the survey does not allow one to determine whether lecturers who indicate that they do not know where the syllabus is on the e-platform *Moodle* are in an academic position or guest lecturers. The overwhelming majority, 41.2%, indicate that in the first lecture students are introduced to the main sections of the syllabus with the help of a presentation. The next most popular method is oral presentation (without presentation), indicated by 21.6%. 5.9% indicate that a separate *MS Word* or similar format report is prepared for students, which is easier to understand and more concise. 60.6% of respondents indicate that they spend 10 minutes, 27.3% indicate that they spend 10–20 minutes, and only 6.1% spend about 20–30 minutes introducing syllabi and learning outcomes.

Table 5 provides an overview of the sections of syllabi that lecturers introduce to students in particular. As can be seen, five sections are most important in the opinion of the lecturers. This explains the results of Table 4, where students mostly indicate that lecturers introduce learning outcomes at the beginning of the study course.

Table 5. Most popular sections of syllabus lecturers are introducing to students (%)

Sections of syllabi	very important	rather important	neutral	rather irrelevant	very insignificant
amount of CP	15.6	21.9	37.5	18.8	6.3
the number of contact hours	43.8	28.1	21.9	6.3	0
for organizing the course in semesters (if the course is implemented in several semesters)	50	12.5	28.1	3.1	6.3
on the field of course science	25	31.3	34.4	6.3	3.1
for all academic staff involved in the implementation of the course (if there are several)	21.9	34.4	28.1	9.4	6.3
on the necessary prior knowledge	25	31.3	34.4	6.3	3.1
about the aim and tasks of the study course	78.1	18.8	3.1	0	0
about learning outcomes	71.9	18.8	6.3	3.1	0
on the tasks of independent work	81.3	18.8	0	0	0
for current tests and final examination	81.3	18.8	0	0	0
on the topics that will be covered in the study course	71.9	18.89	3.1	6.3	0
about additional methods you will use in the study course	31.3	28.1	28.1	9.4	3.1
for mandatory, additional and recommended literature	40.6	43.8	9.4	6.3	0

Conclusions

Responding to the stated aim and research question it must be concluded that the statistics on the number of those reading syllabi are relatively low (categories with the highest reading activity stand out at 10–40%). Neither the academic year nor the affiliation to a certain branch of science indicates any logical explanation for how students read syllabi. Despite the fact that the reading statistic is relatively low for students, thanks to the lecturer's effort (a majority of 41.2% lecturers indicate that in the first lecture students are introduced to the main sections of the syllabi with the help of a presentation), students are acquainted with the content of syllabi and learning outcomes (on average over four years, 60.25% of students completely agreed that they achieved the learning outcomes during the study course).

Lecturers play a key role in this process. Lecturers have to be informed about the feedback on their syllabi reading statistics, otherwise lecturers get the impression that students are not interested in reading syllabi at all (78.8% lecturers believe so), although results show it is not the case. Lecturers have to be informed of where syllabi are available for students and lecturers to read in the internal system *Moodle*. Lecturers have to be encouraged to spend more time introducing the syllabus and be supported in preparing separate *MS Word* or similar format reports for students that are easier to understand, and more focused. Further research should analyse whether there is any relationship between students who responsibly read syllabi and those who achieve a higher assessment in the final examination.

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