Purposefulness and Time Management Components of Self-directed Studies at Latvia University of Agriculture

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Abstract: Students' self-assessment of their learning is an essential and recognized part of the study process that helps to improve their self-directed studies. The study relates to the components of self-directed studies and particularly to purposefulness of studies and time management, e.g. the students' capability to plan time in favour with study requirements. The aim of the study was to determine the components of self-directed studies and time management, and to analyse the purposefulness of studies and time management at Latvia University of Agriculture. The theoretical study was focused on the analysis of the components of time management and self-directed learning (SDL) using the approach of transformative learning. The method of questionnaire was used to investigate the students' self-assessment of their self-directed studies focusing on purposefulness to reach better learning outcomes, tutors' support and time management in the empirical study. The results of the study were obtained from 294 first-year and 218 third-year students of agricultural engineering, forestry and forest engineering, food technology, agriculture, veterinary medicine, construction, information technologies and economics fields of Latvia University of Agriculture (LLU). There were compared the data and their distribution got from the first and third year students using p value ($p \leq \alpha = 0{,}05$) as a criterion. Therefore the questionnaire results serve as a means of revision of the students' and lecturers' understanding of the quality of studies considering the influence of time management and the importance of tutors' help as well. The obtained results is one of the backgrounds that determine further investigations and improvements of study process organization paying a serious attention to time management skills promotion involving three groups: students, their self-government and academic staff. It means that the mechanism of helping how to plan and use the time in favour of studies should be worked out and implemented.

Keywords: self-directed university studies, purposefulness of studies, time management.

Introduction

Purposefully managed self-directed university studies are highly important because they put a stress on each student's higher responsibility, initiative, motivation, independence, collaboration and self-assessment. Time management is a crucial capability in order to cope with a lot of requirements, tasks and aims for each university student.

One of the author's recent studies in relation to self-directed studies was the investigation of competences as the main outcome of SDL and internal/external factors having an impact on SDL as well as analysed selected indicators' results of SDL at Latvia University of Agriculture (Briede, 2015). The study results showed that not all of students were ready for successfully guided self-directed studies because getting of higher education is very popular among young people but not all of them are motivated for deep and research-based studies.

Skilful time management is one of the ways how to promote the students' learning. Therefore the students should be able to assess how much time is necessary to cope with the task successfully. The students underestimate their ability and fail often because of the lack of time. The study comprises investigations of the components of self-directed studies and time management as one of SDL components. The study shows how students assess their time management by themselves and how they comment it. The empirical data discover relation between the students' capability of time management and purposefulness to reach better learning outcomes as one of the relevant components of self-directed studies as well as necessity of tutors at Latvia University of Agriculture.

The term „self-directed learning" (SDL) is analysed widely in scientific texts of adult problems and development. The term is used in adult education and students' learning also refers to the results of SDL investigations.

SDL is considered in the study as a process where each individual actively keeps cognition, emotions, motivation and activities which are systematically oriented towards reaching of personal goals.

The main methods of the study were the theoretical analysis of self-directed studies including time management as a particular component, and the questionnaire of the students of LLU.

The aim of the study was to determine the components of self-directed studies and time management, and to analyse the purposefulness of studies and time management at Latvia University of Agriculture.

The objectives of the study: to analyse the term of self-directed studies and its components; to analyse the term of time management and its components; to questionnaire students about their purposefulness to reach better learning outcomes and time management towards studies and assess coherences between them; to ask students about the necessity of tutors in order to get more information on their motives and problems.

Methodology

The theoretical basis of the study was:
- the transformative learning as experiental learning by means of critical reflection through rational discourse by J. Mezirow (1991, 2000);
- systemic approach to self-directed learning by K Saks and A. Leijen (2014); B. J. Zimmerman and D.H. Schunk (2011);
- time perspective in micro, meco and macrosystem by U. Bronfenbrenner (2000, 2005, 2006);
- cognitions of time perspective by P. G. Zimbardo and J.N. Boyd (2008).

Transformative learning theory developed by J. Mezirow (1991, 2000) describes diversely how learners use their experience constructing, discussing and assessing meaning. Critical reflection of the experience is a crucial component of transformative learning. It empowers changes of understanding of the self, beliefs, attitude and emotions. Rational discourse is a means which should be used in the process of transformative learning. Therefore the meaning schemes are transformed and the learners develop their thinking skills integrating new cognitions in their experience.

Critical transformation of experience in the process of development of new professionals is a feature that they think about learning outcomes and attitude, change them and become autonomous learners. Therefore critical reflection through rational discourse is an integral component in self-directed learning.

The term „self-directed learning" (SDL) refers to adult education and its indicators are more appropriate to university studies. It „originates from adult education; practiced mainly outside traditional school environment; involves designing learning environment; involves planning learning trajectory; broader macro-level construct" (Saks, Leijen, 2014, 193).

The term „self-regulated learning" (SRL) is one of self-regulation domains and is used in investigations related to all groups of age.

SDL and SRL have the following common features: „1. both are seen in two dimensions a) external/process/event; b) internal/personality/aptitude; 2. both have four key - phases: defining tasks - setting goals and planning - enacting strategies - monitoring and reflecting; 3. active participation; 4. goal - directed behaviour; 5. metacognition; 6. intrinsic motivation" (Saks, Leijen, 2014, 193).

SRL covers three mutually overlapping fields: cognitive and metacognitive, social and motivation and behavioural and health (Zimmerman, Schunk, 2011).

The first field involves cognitive and metacognitive critical and self-reflection abilities (to evaluate one's experience and judge critically on problems and events, and take appropriate decisions) (Bogo, Regher, 2006) as well as know and understand – How? It means that the student is able to organize and evaluate success of studies. As regards labour market a person is able to adapt to changing demands flexibly and solve them professionally: to state and manage job tasks in various situations, find solutions and transitions in problems and set down decisions based on real analysis (Kniel, 2009, 58).

The second field focuses on social processes and motivation. Students display their values and outer impacts on their decisions and behaviour. „Attitude" is a key word of the field.

The third field covers behavioural processes to solve health and other psychical problems in order to avoid from inadequate self-esteem or self-punishing, or self-pitying.

It means that students' SDL components have to comprise attitude, cognition, metacognition and critical reflection of their experience. The SDL components manifest themselves in time and it has a lot of limitations, and aspects of its optimal usage in the process of studies. Therefore the time is so valuable and important, and has to be selected as one of SDL components.

Time management is closely related to humans dreams, hopes, goals and wish to achieve them (Lehmkuhl, Lamping, 1993; Zimbardo, Boyd, 2008). According to U.Bronfenbrenner et al. (2000, 2005, 2006) different time periods affect how the proximal process takes place. The time periods are the following: microtime: "Continuity vs. discontinuity within ongoing episodes of proximal processes; mesotime: frequentcy of these episodes across days and weeks;macrotime: changing expectations and events in the larger society (within and across generations). The power, form, content, and direction of the proximal processes effecting development vary systematically as a joint function of the characteristics of the person, environment, and changes over time". (Brofenbrenner, 2005, 3-15; Brofenbrenner, Evans, 2000, 115-125; Brofenbrenner, Morris, 2006).

P.G. Zimbardo and J.N. Boyd (2008) analyse various series of paradoxes of time from the perspective of its effect on our lives. Time perspective influences our attitude and actions through our personal experience and culture.

The theoretical construct of the empirical study instrument were M. Siniscalco and N. Auriat (2005) guidelines for writing questions. They stress keeping of the vocabulary simple and the questions short, avoiding of: double-barrelled, hypothetical questions and double negatives, overtaxing of the respondent's memory and overlapping response categories.

L. Cohen, L. Manion and K. Morrison mention that questionnaires should encourage respondents to co-operate and they have to be easy and attractive. They also comment on Moser and Calton's conclusion that central tasks in the questionnaires editing are completeness, accuracy and uniformity (Cohen, Manion, Morrison, 2011). The questionnaire touched the problems important for students and promoted deeper reflection on attitude and puposefulness towards learning, study environment, and desire to be an innovative professional.

There were compared the data and their distribution got from the first and third year students using p value (p≤α=0,05) as a criterion. Calculations were done by interactive calculation tool (Preacher, 2001).

Empirical study had beeen carried out in May and December 2015. The method of questionnaire to investigate students' self-evaluation on the development of first and third year students' self-directed learning had been carried out. There were included dichotomic choice and ranged answers in the questionnaire (Kristapsone, 2008). The dichotomic answer choices were about the necessity of tutors but in ranged answers students marked high (h), medium (m) and low (l) level of time management and purposefulness of reaching better outcomes of learning. The obtained results could be used in the revision of planned results of study courses and implementation of methods and content promoting better reaching of learning outcomes.

Results and discussion

Getting of competence as the highest learning outcome is a process which should be promoted by self-directed learning (SDL). It is a process where each individual actively keeps cognition, emotions, motivation and activities which are systematically oriented towards reaching of personal goals. SDL is a precondition for innovative and responsible activity in a labour market. Students need to be aware of their SDL skills and understand how to improve them. Considering theoretical investigations of SDL phases and fields it is possible to determine the following SDL components of university studies:
- responsibility and purposefulness (setting of goals and planning) towards studies and chosen professional field;
- active participation in the study process and societal activities;
- continuous cognition and metacognition;
- critical reflection of experience (particularly of learning outcomes and behaviours);

- time management.

Time is a crucial phenomenon of our space of life and it directly relates to our choices and will-power to achieve our goals and to complete tasks.

The following features of the student's time management in the study process were substantiated in the result of the theoretical study:
- ability to be aware of one's time perspective, its development and significance in life;
- understanding of the impact of micro-, meso- and macrotime periods on a person and life episodes, and events;
- clear understanding of needs, goals and tasks;
- ability to evaluate time resources necessary for achieving goals and completing tasks;
- ability to organize self-, time and environment;
- ability to determine prior tasks and concentrate on them.

512 students (294 – first year and 218 – third year) of Latvia university of Agriculture from the fields of agricultural engineering, forestry and forest engineering, food technology, agriculture, veterinary medicine, construction, information technologies and economics answered three questions about purposefulness to reach better learning outcomes and time-management (Table 1), and the fourth question was about the necessity of tutors. The survey had been carried out in eight faculties in May and December 2015.

Table 1

Students' self-assessment of self-directed learning

Indicator	Respondents		Self-assessment			P value
	Year	Totally	h	m	l	
Studies with the purpose to reach as much as possible better learning outcomes	1	294	182	112	0	0.000
	3	218	102	102	14	
Ability to plan time in order to meet study requirements	1	294	76	162	56	0.809
	3	218	61	114	43	
Ability to consider terms of the study process	1	294	83	163	48	0.086
	3	218	64	103	51	

Significant difference among the first and third year students' self-assessment indicators is determined by *chi-square test*. Self-assessment differences in studies with the purpose to reach as much as possible better learning outcomes are obvious The first-year students' self-assessment results are higher than third year students' results.

The significance difference of other indicators is not statistically significant ($p > 0.000$). The differences is only in ability to consider terms of the study process ($p = 0.086 < 0.100$).

The first and third year students' self-assessment of purposefulness in relation to time management is reflected in the Table 2 and Table 3. The differences between indicators are significant and actually there is not a coherence between time management and purposefulness to reach as much as possible better study outcomes.

Data in Table 2 and Table 3 show students recognition of their time management level, and only 83/76 first year students from 294, and 64/61 third year students from 218 are on high level.

Students recognize the reasons of their time management problems in their comments, e.g. do not plan, not able to harmonize time and tasks, laziness, other priorities, etc. It means that the students need to get systemic knowledge about time management skills and their importance. It could be useful to investigate the students' actual learning outcomes and time management skills in more detailed way. It is important to find coherences among indicators of the students' learning process and find ways how to improve their learning outcomes particularly in a situation when the students recognize that their studies are purposeful.

Table 2

First-year students' self-assessment of purposefulness in relation to time management

Indicator	Respondents		Self-assessment			P value
	Year	Totally	h	m	l	
Studies with the purpose to reach as much as possible better learning outcomes	1	294	182	112	0	0.00
Ability to consider study terms			83	163	48	
Studies with the purpose to reach as much as possible better learning outcomes	1	294	182	112	0	0.00
Ability to plan time in order to meet study requirements			76	162	56	

Table 3

Third year students' self-assessment of of purposefulness in relation to time management

Indicator	Respondents		Self-assessment			P value
	Year	Totally	h	m	l	
Studies with the purpose to reach as much as possible better learning outcomes	3	218	102	102	14	0.000
Ability to consider study terms			64	103	51	
Studies with the purpose to reach as much as possible better learning outcomes	3	218	102	102	14	0.000
Ability to plan time in order to meet study requirements			61	114	43	

The fourth question was about the necessity of tutors. 35% of 294 first year students and 25% of 218 third year students gave a positive answer. The main reason why the students prefer tutors is a necessity for help in exat courses (physics, chemistry, mathematics). All the students stress that brief and precise explanations of the problem and how to solve it are crucial because then it is easier to percieve and understand. The students also recognize that they get confused in information and they need immediate help how to cope with course requirements and terms.

The first year students emphasize that they have problems in understanding of the study process and the university system. They assess many courses as quite complicated. The first year students remark that seniour students-buddies could be a very good solution for them but they also wish an individual help and friendly attitude from teachers. They stress that they have a lot questions about everyday problems and study process organization and run (planning of time, to get to know bits about studies, training of memory etc.).

The third year students stress importance of the change of experience with teachers and seniour students as well as they say that getting of the information about practice at companies could be very useful in further studies and for future plans. They recognize that meetings with employers could help to judge and take decisions about their practice and job choices. The students also recognize the importance of motivation and their opinion is that tutors could be good persons which stimulate learning motivation and give advice in writing Bachelor theses.

Further usage of the components of SDL in investigation of university students' learning means working out of detailed indicators of each component, and continuing regular questionnaires of students. It means also improvements of the study process quality considering the SDL components and indicators and paying also a serious attention to time management skills.

Time management depends how really we are aware of our wishes and do we have enough will-power to implement them in appropriate activities and overcome procrastination as well as control ourselves and handle criticism. Time management includes also the ability of solving of spatial problems (keeping things in order, etc.) and organization of physical environment (Lehmkuhl, Lamping, 1993).

Business environment pays crucial attention to time management skills preparing handbooks, organizing training courses and pointing to poor time management indicators in their home pages and sources (11 Symptoms of poor..., 2015).

According the Descriptors defining levels in the European Qualification Framework (EQF) (Descriptors defining..., 2015) the learning outcomes are distributed into knowledge, skills and competence. SDL orientation towards learning outcomes promotes more detailed understanding of their components and content.

Conclusions
- Students' self-assessment of their learning should be promoted regularly by questionnaires and results used to improve SDL in consultations by tutors and buddies. Therefore the questionnaire results serve as a means of revision of the students' and lecturers' understanding of the quality of studies. The obtained results is one of the backgrounds that determine further investigations and improvements of study process organization paying a serious attention to time management skills promotion in three groups: students, their self-government and academic staff. It means that the mechanism of helping how to plan and use the time in favour of studies should be worked out and implemented.
- Continuous development and support of SDL components promote the quality of learning and understanding of the individual's human capital opportunities in the frame of competence oriented systemic studies. Strengthening of coherences among components and deeper study of their content and results implementation in practice is one of the ways how to make outcomes-based self-directed studies more effective. Therefore self-directed studies can be analysed as an instrument of increasing students' learning success.

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