DEVELOPMENT OF SELF-REGULATION AT UNIVERSITY STUDIES

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The article presents an on-going discussion whether learners can become self-regulated during their studies. Four stages of self-regulation have been identified: initial self-projecting, self-monitoring, self-reflecting and final self-projecting stage. The results of students' feedback questionnaire which included SWOT analysis, the analysis of motivational factors and self-reflection on the learning outcomes learning are analysed. A shift from self-monitoring stage to self-reflecting stage is revealed. The paper also describes students' willingness to self-monitor their learning process when they are asked to take responsibility for learning outcomes. The conclusion is drawn that students find it difficult to self-monitor when given full responsibility. It is also revealed that writing reflection pages help to self-reflect on the learning outcomes.

Keywords: self-regulation stages, motivation, self-reflection.

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Introduction

Nowadays motivation research and its impact on self-regulation of academic learning has received much attention. The trend towards motivational theories related to classroom learning has generated more interest in the topic among language teachers and researchers of L2. There has been much research done to reveal the correlation between language learning motivation and learning outcomes from the point of view of ability to self-regulate studies.

Most researchers agree that motivation plays a vital role in the learner’s achievement; it is often attributed with the capacity to override other factors, such as language aptitude, to affect achievement in both negative and positive ways. Although its importance is widely recognized, its meaning is elusive. Inspired by Crookes’ and Schmidt’s (1991) discussion of the definition and measurement of L2 learning motivation four conditions for motivation were introduced by Keller in 1983. They are: interest (in the topic and activity), relevance (to the students’ lives), expectancy (expectations of success and feelings of being in control) and satisfaction (in the outcome). These four conditions contain elements of each of the major approaches to motivational psychology. The expectancy-value theory is represented in each condition. Expectancy itself is treated as a condition and relevance, interest, and satisfaction are all related to the value placed on the task. Autonomy, an integral principle of the self-determination theory, is included in the condition of expectancy. Goal-directed theories are represented in the condition of satisfaction in the outcome, the extent to which goals are met. The problem whether the students can self-regulate their learning process is being analysed in the article from the point of view of self-regulatory stages. The object of our research is students’
Self-regulation stages

Researchers have applied the intrinsic vs. extrinsic and the self-determination models to second language learning. Students’ curiosity (which translates into motivation to learn) is awakened by an “optimum level of informational complexity” (Lepper, Malone 1987: 256–257). When students engage in a task or activity in order to satisfy their curiosity the task is intrinsically motivating. These types of tasks are viewed as most beneficial in the classroom. Intrinsically motivating activities are often equated with fun or enjoyable activities or activities that students would perform on their own volition. Several studies have attempted to prove that intrinsically motivating activities lead to better learning.

Four levels of regularity to extrinsic motives in the classroom have been applied. The least developed form of extrinsic motivation, external regulation, is the least beneficial for students and results in the lowest level of learning. The task is regulated and initiated by the teacher, an external origin. When students follow a teacher’s rules or do their homework in order to avoid guilt or embarrassment they are involved in introjected regulation. Students involved in identified regulation complete a task or activity because they value the outcomes it will produce. If the value and the outcome of the activity have been integrated into the learner’s sense of self and are assimilated with the learner’s other values, needs, and identities, the student is engaging in integrated regulation (Šliogerienė 2002: 22–28). Integrated regulation is very close to intrinsic motivation and is seen as very beneficial to learning and achievement.

Dörnyei following Crookes’ and Schmidt’s initiative, developed yet another framework of motivation (Dörnyei 1998: 118–120). Dörnyei’s model again dealt specifically with motivation in the language classroom. His taxonomy of motivation is comprised of three levels: the Language Level, the Learner Level, and the Learning Situation Level. The Language level is the most general level which focuses on “orientations and motives related to various aspects of the L2” (Dörnyei 2001: 18). The motives and orientations at this level determine the language studied and the most basic learning goals. Dornyei identifies motivation at this level using the concept of orientation introduced by Gardner (1985). The Learner level involves the influence of individual traits of language learners. Motivation is influenced at the Learner Level by the learner’s need for achievement and self-confidence. The Learner Level is concerned with internal, affective characteristics of the learner related to expectancy. Motivation at the Learning Situation Level is influenced by a number of intrinsic and extrinsic motives that are course specific, teacher specific, and group specific.

The course specific motivational components relate to the class syllabus, the materials used, the teaching method, and the learning task. Dörnyei uses the conditions presented by Keller and later by Crookes and Schmidt to describe these conditions: Interest, Relevance, Expectancy, and Satisfaction. The teacher’s specific motivational components are the characteristics of the teacher and the teaching style that affect learner’s motivation (Šliogerienė 2002: 24). The group specific motivational components refer to the social influences on
motivation from the collective group that the learner is a part of.

Meanwhile students’ motivation to learn depends on their needs and interests, while the effectiveness of their learning is influenced by motivation.

Modern educational and psychological point of view provides evidence of these dimensions for effective learning:

- motivation,
- self-assessment,
- psychological atmosphere,
- perception of learning significance,
- development of skills.

Having overlooked the theoretical sources, it is suggested that syllabus design should be based on students’ needs analysis. This should help to construct and plan a syllabus properly in order to assure successful learning.

Needs analysis should be given considerable attention in making a particular course to serve a particular group’s interests. Therefore, information regarding students attitude held towards English and towards the learning, their learning needs, the necessities that they lack can form the basis of the syllabus. there are many ways to ascertain students’ evaluation of the course, the methods that have been used to develop learners’ competencies in order to reach the aims of the study subject syllabus. Whatever method is used, the questions “Why do we use it?” and “What do we evaluate?” are to be answered by both the syllabus designer and the students. Over the last decades, the shift from teacher-centred approach to learner- centred approach at the university has been widely discussed and researched which means that traditional teaching/learning methods have also been replaced by innovative teaching/learning techniques fostering learners’ creativity, autonomy and reflection.

Taking into account that reconstruction of experience is a central and continuous, overall aim, researchers analyse learners’ values, attitudes, emotions which transform understanding and alter ideas, while relating them with previous knowledge and obtained information. Learners are encouraged to regulate their own studies taking responsibility for their progress and learning outcomes. Thus, self-regulation being a proactive process whereby individuals consistently organize and manage their thoughts, emotions, behaviours, and environment in order to attain academic goals (Boekaerts, Corno 2005: 199–208; Zimmerman 2000: 13–39, 2008: 166–183), encourages learners to decide on their learning outcomes and techniques they are willing to use. Students become self-regulated by setting goals, selecting and using strategies, monitoring performance, and repeatedly reflecting on learning outcomes over a lengthy period of time (Zimmerman 2008: 166–183). “Self-regulation operates through three areas of psychological functioning that are essential in learning: cognitive (e.g., learning strategies), motivational (e.g., self-efficacy, task value), and metacognitive (e.g., self-monitoring and self-reflection)” (Bandura 1993; Hong, Peng, Rowell 2009; Trautwein, Köller 2003, cited in Ramdass, Zimmerman 2011: 194–218).

The article deals with the third area of psychological functioning, which is metacognitive area where self- monitoring and self-reflection are the key factors in fostering decision making. Activities such as planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task are metacognitive in nature. As metacognition plays a vital role in successful learning, it is important to study metacognitive activity and development to determine how students can be taught to better apply their cognitive resources through metacognitive control. The term “metacognition” is most often associated with John Flavell (1979: 906–911). According to Flavell (1979: 906–911, 1987: 21–29), metacognition consists of both metacognitive knowledge and metacognitive experiences or regulation. “Metacognition has many facets making difficult the distinction between monitoring and control and the setting of the line between these two functions. There are two basic manifestations of the monitoring
function, namely, metacognitive knowledge and metacognitive experiences” (Flavell 1979: 908). A. Efklides (2006: 8) presents a summary (Table 1) of three facets of metacognition and their manifestations.

Metacognitive knowledge refers to acquired knowledge about cognitive processes, knowledge that can be used to control cognitive processes. Metacognitive experiences encompass a wide range of manifestations that would function in studying process while shifting from self-monitoring to self-reflection stage. Judgments or estimates of learning and task specific knowledge in education account for the development of metacognitive experiences. The stage of self-monitoring means students’ awareness of their outcome and motivational behavior based on the initial stage of self-regulation (Fig. 1), that is initial self-projecting. Having analysed learners’ strengths, weaknesses, opportunities and threats, students express their attitude towards learning a certain course subject. Motivational factors influence the ability to self-monitor one's learning process. Pintrich (2000 cit. in Schunk 2005: 85–94) views cognitive monitoring as including dynamic metacognitive judgments of learning and metacognitive awareness (feeling of knowing). Judgments of learning, according to Pintrich, involve beliefs about what one knows and what one does not understand (Pintrich 2000: 452–458). Feeling of knowing occurs when students believe they have some understanding of material, perhaps because they previously studied it. They may not be able to recall the information (e.g., the "tip-of-the-tongue" phenomenon) but it seems familiar (Schunk 2005: 85–94).

Self-monitoring stage is characterized by learners’ ability to take actions autonomously, which is to take responsibility for their studies and, thus, learning outcomes. Students decide on their learning pace, they control the learning process themselves. Metacognitive experiences present in a problem solving situation are judgment of solution correctness along with feeling of confidence (Costermans, Lories, Ansay 1992:

| Table 1. The facets of metacognition and their manifestations as a function of monitoring and control (presented by A. Efklides (2006)) |
|---------------------------------|----------------------------|-------------------------|
| **Metacognitive knowledge**     | **Metacognitive experiences** | **Metacognitive skills** |
| Ideas, beliefs, ‘theories’ of   | Feelings                  | Conscious, deliberate activities and use of strategies for |
| Person/self                     | Feeling of familiarity    | Effort allocation        |
| Task                            | Feeling of difficulty     | Time allocation          |
| Strategies                      | Feeling of knowing        | Orientation/monitoring of task requirements/ demands |
| Goals                           | Feeling of confidence     | Planning                |
| Cognitive functions (e.g. memory, attention) | Feeling of satisfaction | Check and regulation of cognitive processing |
| Validity of knowledge           |                           | Evaluation of the processing outcome |
| Theory of mind                  |                           |                         |
|                                 | Judgment/estimates        |                         |
|                                 | Judgment of learning      |                         |
|                                 | Source memory information |                         |
|                                 | Estimate of effort        |                         |
|                                 | Estimate of time          |                         |
|                                 | Online task-specific knowledge |                   |
|                                 | Task features             |                         |
|                                 | Procedures employed       |                         |
142–150) and feeling of satisfaction (Efklides 2002a: 163–184, 2002b: 19–34). Students’ willingness and ability to take responsibility for their decision making and feeling confident about it leads to a new learning paradigm where teacher’s role is gradually diminishing, thus giving learners freedom in judgment of solutions. Having this shift into account, it is understood that when students advance to higher grades, teachers gradually reduce that support and expect students to incorporate these self-regulation processes in assignments that are done independently (Zimmerman 2002: 64–70). In the absence of the teacher, students take responsibility to self-regulate their learning and decide where, when, how, why, and what to do with the assigned homework (Ramdass, Zimmerman 2011: 194–218).

Research findings

A pilot research was carried out in the department of Applied Philology, Mykolas Romeris University in 2013. The results of the Students feedback questionnaire were analysed in the middle of the course of Modern English. The questionnaire was divided into two sections: SWOT analysis and motivational factors influencing students’ studies and the reflection pages in portfolio based learning. The main focus in this article was the analysis of the two stages of self-regulation: initial self-projecting stage and self-monitoring stage in choosing different tasks, doing tasks at their own pace. Distribution frequencies analysis was used to measure the students’ motivational factors in their studies; the difficulty of self-monitoring when given full responsibility as well as self-reflection on the learning outcomes.

The findings showed that the students’ motivation to learn foreign languages was very high, though about half of the respondents appeared to be extrinsically motivated. The responses show that 62% would do the tasks on time because either the teacher is very strict or they are afraid of getting low grades. SWOT analysis revealed that the biggest challenge the learners face is the expansion of vocabulary in the course of Modern English. The variable of self-pacing was measured from the point of view autonomous task management. About 70% of the respondents agreed with the statement ‘It is difficult to do the tasks on time when you are given full responsibility to do them at your own pace’ (Fig. 2).

The majority of the respondents were asked to write reflection pages for the first time. The variable of the usefulness of reflection pages in learning a foreign language was measured. It is interesting to notice that only 5% of respondents disagreed with the statement “I found the
reflection pages helpful” while 42% strongly agreed and 27% of students found the reflection pages helpful to reflect on the learning outcome. Students self-assess their learning progress and write the reflection pages identifying their strengths, weaknesses and needs (Fig. 3).

Shifting from self-monitoring stage to self-reflection stage students are asked to do a lot of self-assessment. This kind of activity helps them to discover what they have learned, develop questions for further study, identify learning needs, and more actively direct their education. Promotion of this particular stage of self-regulation by giving students relative freedom in choosing the form of presentation of a certain assignment, the time for completing tasks as well as response on feedback was used during the studies of Modern English. Some strategies for generating ideas, such as freewriting and looping, cubing and brainstorming, were used to foster self-assessment. Data revealed that 39% of respondents strongly agreed and 42% agreed that the usage of strategies for generating ideas fostered creative thinking, encouraged them to “… look at the task differently”, “…to create something new”, “…to choose a topic that was not given by a teacher”.

Correllational statistics for the usefulness of reflection pages and the usefulness of self-regulation skills revealed that the Pearson coefficient was high: $r = 0.664^{**}$, $p = 0.000$. Respondents’ view to the usefulness of reflection was positive. The usefulness of this kind of activity varies among the males and females and the revealed difference is statistically significant. $F(5, 1247) = 9.843; p < 0.001$. The application of the Bonferroni criterion in Post Hoc test tabulated the gender the results of which lead to the conclusion that the female respondents are more willing to write reflection pages than males. Female respondents (61.9%) were more positive than male respondents, i.e. they expressed a higher degree of willingness to write reflection pages in the portfolio than male respondents even though the number of male respondents dissatisfied with the overload brought by filling in the portfolio was smaller than that of female (56.6%) respondents $F(5, 1247) = 22,664; p < 0.001$. Respondents who acknowledged that filling in the portfolio was useful to improve their English were more positive expressing their attitude towards writing reflection pages; therefore, they expressed a higher level of willingness to reflect on their learning outcomes. A conclusion can be drawn that the females are more diligent and find it more useful to write reflection pages than men.

Conclusions and discussion

The results of the study indicate that students’ motivation to learn foreign languages is very high, though about half of the respondents appear to be extrinsically motivated. Talking about the levels of regularity to extrinsic motives
which are applied in the classroom, researchers admit that the least developed form of extrinsic motivation, external regulation, is the least beneficial for students and results in the lowest level of learning. The task is regulated and initiated by the teacher, an external origin. In this study the central idea was not to analyse the impact of motivational factors on the learning outcomes, both SWOT analysis and the motivational factors were taken as background information for further stage of self-regulation.

The pilot research results show that writing self-reflection on the learning outcomes encouraged students’ creative thinking and willingness to take responsibility in choosing assignments. The respondents found that writing reflection pages helped to self-reflect on the learning outcomes. The findings of the investigation clearly showed that the females being more diligent found it more useful to write reflection pages in a language learning portfolio than men. The major findings of correlational statistics revealed a high level of willingness to reflect on students’ learning outcomes. Having analyzed the results of the questionnaire the following conclusions can be drawn: 1) students find it difficult to self-monitor when given full responsibility; 2) writing reflection pages help to self-reflect on the learning outcomes.

References

Bandura, A. 1993. Perceived self-efficacy in cognitive development and functioning, *Educational Psychologist* 28: 117–148.

Boekaerts, M.; Corno, L. 2005. Self-regulation in the classroom: a perspective on assessment and intervention, *Applied Psychology: An International Review* 54: 199–231.

Costermans, J.; Lories, G.; Ansay, C. 1992. Confidence level and feeling of knowing in question answering: the weight of inferential process, *Journal of Experimental Psychology: Learning, Memory, and Cognition* 18: 142–150.

Crookes, G.; Schmidt, R. 1991. Motivation: reopening the research agenda, *Language Learning* 41(4): 469–512.

Dornyei, Z. 1998. Motivation in second and foreign language learning, *Language Teaching* 31: 117–135.

Dornyei, Z. 2001. *Teaching and Researching Motivation*. Harlow: Pearson Education.

Efklides, A. 2002a. Feelings as subjective evaluations of cognitive processing: how reliable are they?, *Psychology: The Journal of the Hellenic Psychological Society* 9: 163–184.

Efklides, A. 2002b. The systemic nature of metacognitive experiences: Feelings, judgments, and their interrelations, in M. Izaute, P. Chambres, P.-J. Marescaux (Eds.). *Metacognition: process, function, and use*. Dordrecht, The Netherlands: Kluwer, 19–34.

Efklides, A. 2006. Metacognition and affect: what can metacognitive experiences tell us about the learning process?, *Educational Research Review* 1: 3–14. Thessaloniki, Greece.

Flavell, J. H. 1979. Metacognition and cognitive monitoring: a new area of cognitive-developmental inquiry, *American Psychologist* 34: 906–911.

Flavell, J. H. 1987. Speculations about the nature and development of metacognition, in F. E. Weinert, R. H. Kluwe (Eds.). *Metacognition, motivation and understanding*. Hillside, New Jersey: Lawrence Erlbaum Associates, 21–29.

Gardner, R. C.; Maclaytre, P. D. 1993. On the measurement of affective variables in second language learning, *Language Learning* 43: 157–194.

Gardner, R. C. 1985. *Social Psychology and Second Language Learning: The Role of Attitudes and Motivation*. London: Edward Arnold.

Hong, E.; Peng, Y.; Rowell, L. L. 2009. Homework self-regulation: grade, gender, and achievement-level differences, *Learning and Individual Differences* 19: 269–276.

Keller, J. M. 1983. *Motivational Design of Instruction. Instructional Design Theories and Models: An Overview of their Current Status*. Ed. C. M. Reigeluth. Hillsdale, NJ: Lawrence Erlbaum.

Lepper, M. R.; Malone, T. W. 1987. Intrinsic motivation and instructional effectiveness in computer-based education, in R. E. Snow, M. J. Farr (Eds.). *Aptitude, learning, and instruction: cognitive and affective process analysis*. Hillsdale, NJ: Erlbaum-Dörnyei 3: 255–286.

Pintrich, P. R. 2000. The role of goal orientation in self-regulated learning, in M. Boekaerts, P. R. Pin-
SAVIREGULIACIJOS ĮGŪDŽIŲ UGDYMAS UNIVERSITETINĖSE STUDIJOSE

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Straipsnyje nagrinėjama pastaruoju metu plačiai diskutuojama tema, ar studentai gali studijų proceso metu patys reguliuoti savo studijas. Išskiriamos keturios savireguliacijos stadijos: pradinė saviprojekcijos, savikontrrolės, savirefleksijos ir baigiamoji saviprojekcijos stadija. Atliktas tyrimas, kurį sudarė dvi dalys: motyvacinių veiksnių bei stiprybių, silpnybių, galimybių ir grėsmių apžvalga ir antroji dalis – savirefleksija apie savo mokymosi pasiekimus. Kaip parodė tyrimo rezultatai, studentams nebuvo lengva rašyti refleksijos puslapius, bet, respondentų nuomone, tai buvo labai naudinga, nes refleksija leido patiems suprasti, kas jiems sekėsi sunkiausiai, kokie poreikiai ir kaip norėtų projektuoti tolesnę savo veiklą. Atlikta tyrimas leidžia teigti, kad mokymosi motyvacija yra aukšta, nors, anot daugelio respondentų, juos labiau veikia išoriniai motyvacinių veiksnių: dėstytojo griežtumas, baimė gauti blogą įvertinimą. Respondentų atsakymai rodo, kad perėjimas iš vienos savireguliacijos stadijos į kitą, kai studentai turi prisimintiatsakomybę už savo laiko planavimą bei daromą pažangą, reikalauja naujų įgūdžių ir patirties.

Reikšminiai žodžiai: savireguliacijos stadijos, motyvacija, savirefleksija.

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