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LEARNING TO LEARN AS A KEY COMPETENCE AND SETTING LEARNING GOALS

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Abstract:
This paper deals with learning to learn as a key competence and importance of student's goal setting. Before understanding this competence we have to understand learning. Learning as a process is determined by individual and social factors. If we want to understand the connection between competence learning to learn and learning goals setting, we have to understand self-regulation learning, this is a way of learning that enables to develop the competence learning to learn. Individuals have different interpretation of learning theories. In this paper we will deal with student's perspective of how they are setting their own learning outcomes or goals. We focused on researching what are student's learning goals and desired learning achievements or outcomes. We asked them about priority goals or academic achievements which they want to achieve before they leave the faculty and what methods they and their lecturers should use to achieve these goals. The results imply that students are very aware of the importance of their own learning goals setting. They highlighted desired learning achievements or learning goals which are: a broader view on knowledge, the ability to acquire knowledge, the ability to transfer knowledge, the ability to transfer theory into practice, a good knowledge of methodology and the ability to work in teams and communication.

Keywords: learning to learn, key competence, self-regulated learning, goal setting, achievements

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1. INTRODUCTION

Knowledge is one of the most important values and ability to learn is one of the most important skills in our society. Learning theories show different views on learning. Through understanding learning we can understand the competence learning to learn and through all that we can understand the importance of setting learning goals.

In 2006 European Council presented a framework of key competences for lifelong learning (European Communities, 2007). Learning to learn is one of the eight key competences which are vital for personal fulfilment, for people to be included in society, for employability and active citizenship (European Communities, 2007; Hoffmann, 2008, p. 173). We will talk about learning to learn not only in terms of lifelong learning concept, but in general as presented in human life and learning.

An important issue relates to the question: why is learning to learn more important today than ever before? Marentič Požarnik (2000, p. 166–167) claims that the reason is in acceleration of the accumulation of information in all fields of human life. Everything is changing much faster than ever before. In a world, that is changing rapidly, knowledge is also changing and expanding rapidly. Learning strategies are important because of the changes in scientific perspectives - a shift from behaviourism to cognitive perspective.

In this paper we deal with student's perspective of how they are setting their own learning outcomes or goals. We will present some examples of student's goals, desired learning outcomes and skills; and examples of forms and methods of work to effectively achieve these goals which were obtained through a workshop.

2. LEARNING TO LEARN

Learning to learn is the ability to pursue and persist in learning, to organise one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully. This competence means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence (European Communities, 2007, p. 8)*.*

Hofmann (2008, p. 173) describes the term learning to learn as the most important and vital for people trying to deal with the world that is changing rapidly. He sees this competence as a *method-in-action* and claims that people have to engage the method itself. On the other hand, Candy (1990; in Hofmann, 2008, p. 175) describes learning to learn as a competence *that allows people to become more effective, flexible and self-organized learners in a variety of contexts.*

Learning to learn can be seen in basic skills such as literacy, numeracy and ICT skills that are necessary for further learning. An individual should therefore be able to gain, access, profess and assimilate new knowledge and new skills.
Individuals should also be able to:
- learn autonomously,
- be self-disciplined,
- work collaboratively,
- share what they have learnt,
- organise their own learning,
- evaluate their own work,
- seek advice, information and support when appropriate (European Communities, p. 8).

If we look at the research area of this competence, Hofmann (2008, p. 173) is talking about UNIQUE, which is an European network of organisations and individual experts who are dedicated to explore learning to learn. The main goal is to better understand how education can support learners by developing this competence. They understand it as *meta-competence* (Hofmann, 2008, p. 175)*,* because it has an impact on the selection, implication and acquisition of other competences.

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Stringher (2006) pointed out that we have to understand theoretical and empirical issues of this competence. On the theoretical side, the main focus is to understand what learning to learn is, what its components are and how we can assess it.

On the empirical side researchers are following to answer these questions (in Italy):
- What do elementary teachers think of and how they define learning to learn?
- How do they assess this competence, if at all?
- How do elementary school kids define learning to learn?

Stringher (2006) examined 40 definitions of learning to learn. She says, that the learning to learn concept can be found in works of Vigotsky, Devey, Piaget and others. She also claims, that there is a lot of concepts included in learning to learn such as: metacognition, socio-constructivism, socio-cognitive and socio-historical approaches, assessment and lifelong learning.

If learning is directed towards career goals or particular work, an individual should require knowledge, knowledge of the competences, qualifications and skills. Certainly, an individual needs to know and understand his/her preferred learning strategies, the strengths and weaknesses of his/her qualifications and skills. An individual also has to be able to search for the training and education guidance and opportunities and/or support if available (European Communities, p. 8). Mesároš, Mesárošová and Mesárošová (2012, p. 490) claim, that we need to understand intrinsic and extrinsic motivation in order to understand individuals' learning strategies. The strategy means to become the most effective learner and to maximize one's chance of achieving high grades. Learners whose motivation is basically intrinsic are more effective and their learning approach is deep. Learners whose approach is deep are very good in understanding, integrating across disciplines, they see wider, ... Research (Mesároš, Mesárošová and Mesárošová, 2012, p. 496) shows, that *the more positive is students' academic self-concept, the higher is their level of metacognitive awareness.*

We have to understand that this competence relates to motivation for learning, learning goals, preferred ways of learning, learning strategies, cooperation with others and so on (Hoffmann, 2008, p. 175). It means that we as learners become aware of all this concepts and are able to adjust them if needed. As learners we also have to be responsible for our learning. There is not enough to just "consume" knowledge, because learning has to be an active process. Educators are facilitators of learning. They let go of control and leave responsibility for learning to the learner and only give support to learners. Mesároš, Mesárošová and Mesárošová (2012, p. 489) claim, that *motivation and confidence are crucial to an individual's competence*. They also claim, that learning to learn is close to the learning approaches (learning styles, motivation, memory techniques, learning strategies, ...).

Attitudes which (adult) learners will need to follow to develop learning to learn are (Hofmann, 2008, p. 177):
- self-motivation for learning,
- inner willingness for personal development and changes,
- self-awareness and self-confidence,
- positive attitude,
- willingness to motivate and support others.

A positive attitude is an important part of learning to learn concept. It includes the motivation and confidence that an individual is able to pursue successful learning through all his/her life. A problem-solving attitude supports the learning process and an individuals' ability to handle obstacles and change. Essential elements of positive attitude are the desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn (European Communities, p. 8).

Understanding and building on this competence gives a lot of positive effects to a learner. If a person as a learner successfully acquires this competence, he or she can expect potential benefits (Hofmann, 2008, p. 178):
- clearer view on the goals of learning and how to achieve them,
- better connection to his/her potentials,
- better capability of learning from challenges and crisis situations,
- development of capacity of critical thinking,
- better capacity of active citizenship participation,
- he/she becomes more effective, flexible and self-directed learner.

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Mary James et all (2006) gave a lot of practical information and tips how to develop and promote learning among students (learning plans, workshops ...). Ažman (2008) also provides a number of workshops, which teachers (and others who work with students) can use to help develop learning to learn. With these workshops she aims to encourage students to:
- know themselves as students,
- learn to choose ways of learning (learning strategies) that are the most effective,
- develop abilities of planning, controlling and monitoring their own learning (Ažman, 2008, p. 15).

Rozman, Ivanuš Grmek and Bakračevič Vukman (2012) claim, that communication in classroom is one of the most important factors for developing learning to learn. Results of their research apply that teachers see their behaviour and work in classroom as very encouraging for developing competence learning to learn.

However, the biggest issue that needs to be resolved is the problem of transmission of knowledge. Marentič Požarnik (1998) assumes that most of the teaching is based on transferring finished knowledge and that learning is mostly reproductive. Bakračevič Vukman (2010, p. 56) wrote about the need to change the way of learning, that is more oriented, adapted to student's needs, active and cooperative, which can also contribute to develop the ability of learning to learn (or self-regulated learning).

3.   THEORIES OF LEARNING

If we want to understand learning to learn, we have to understand learning. Learning as a process is determined by individual and social factors. Individuals have different interpretation of learning theories. Individuals also have different beliefs about how people learn (Wang, 2012, p. 5). This is the reason, why we know many theories of learning. Through history we can find a lot of different views on learning. We will look at some of them.

1. Behaviouristic view
Behaviourism is focused on researching behaviour that is seen on the outside and considers learning as creating connections between stimulation and reactions. Radical behaviourists are not interested in researching mental processes (thinking, goals, expectations ...), because they think of them as something that cannot be a part of science and therefore not possible to be researched. Skinner (in Marentič Požarnik, 2000, p. 15, 16), a radical behaviourist, described knowledge as relatively permanent change in behaviour that we can discover with observation and influence on it with reinforcement. He also implemented experiments on animals (rats) showing that rewarded behaviour is more likely to occur.

2. Gestalt psychology, Cognitive models and Constructivism
Initially theorists and researchers from gestalt theory were researching perception and they have made an assumption that a human in perception tends to create meaningful patterns and whole pictures. That also happens when we are learning - we transform a problem situation in something that is similar to something we already know, and learning becomes logical (Marentič Požarnik, 2000, p. 15).

As well all experiences in this world, learning cannot happen in a vacuum. Learning happens in relation to an environment (Ikehara, 1999, p. 63). Gestalt theory talks more about experiences and *does take into account the holistic, organismic and integrative nature of human learning experience* (Ikehara, 1999, p. 64). Gestalt cycle of experience has got seven phases: sensation, awareness, mobilisation, action, contact, satisfaction and withdrawal.

Cognitive models of learning emphasize the meaning of human inner mental processes (especially cognitive processes) in learning and achieving global understanding. Compared with behaviourism, the focus is more on the processes happening inside of human brain, not observing the behaviour of individuals (Marentič Požarnik, 2010, p.17)

Constructivism is based on the assumption that knowledge is not something objectively existing. Knowledge is subjective construct (structure), this knowledge creates every single individual by himself, and with that gives meaning to his own experiences (Marentič Požarnik, 2010, p. 17). In the

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field of education this is a theory of knowledge (and the theories derived from them), which are based on the assumption, that knowledge is a human construct, whether it is caused by human activity, individual or social activities (Plut - Pregelj, 2004, p. 22).

3. View of humanistic psychology
Fromm, Maslow and Rogers, humanistic psychologists, claimed, that learning does not mean only perception and intellectual processes. When a person is learning, he is involved in this process with his whole personality. Emotions, personal goals, desire to learn, curiosity, tendency to self-realization and so on - in learning, this is as important as perception and intellectual processes (Marentič Požarnik, 2000, p. 18)

4. Neurophysiological perspective
Neurophysiological research has got a powerful impact on researching the processes of learning. Their main focus is, among others, on comparing brain activity and ability to learn in different states of consciousness, researching the both halves of brain. They also put a lot of attention on computer simulations of learning and problem solving (Marentič Požarnik, 2000, p. 18, 19).

4.   SELF-REGULATED LEARNING

 Taking into account the the Recommendation of European Parliament and of the Council (European Communities, 2007), we can conclude, that one of the necessary skills in learning to learn is also that individuals are able to set their own goals in the process of learning and education. It is important that individuals are able to find and choose the right methods to achieve these goals.

Essential components of learning to learn are metacognition and self-regulated learning (Rozman, Ivanuš Grmek, Bakračevič Vukman, 2012, p. 80). Mesároš, Mesárošová and Mesárošová (2012, p. 491) also highlighted the importance of metacognition as an important element in lifelong learning and competency learning to learn. If we want to understand the connection between learning to learn and setting learning goals, we have to understand self-regulation learning. Self-regulation learning is a way of learning that enables to develop the competence learning to learn. Self-regulation learning can be defined as a way of learning, where a learner sets its own learning goals and then he/she tries to monitor, regulate and control his/her own learning process, taking into account its own characteristics and features of the environment (Tomec, Pečjak and Peklaj, 2006, p. 76). Zimmerman (1998; in Tomec, Pečjak and Peklaj, 2006, p. 76–77) claimed that self-regulation of learning has three phases: previous thinking, control of implementation and self-regulation. In the first phase setting learning goals is one of the five activities. Self-regulation is seen as systematic effort to direct thoughts, feelings and actions, towards the attainment of goals of an individual (Zimmerman, 2000; in Schunk, 2001).

According to Lončarić and Peklaj (2008, p. 74) self-regulated learning means self-regulation of a student in learning or in achieving the learning goals. Self-regulation in learning is just one of the fields, where learners use ability of control their own inner states, processes and behaviour, planning, adopting and changing current state with intention to achieve goals.

Pečjak and Košir (2003, p. 50) claim, that definition of self-regulated learning has to be understood depending on the theoretical paradigms, but most definitions have some things in common:
-   a key element is an intentional use of specific processes and strategies for achieving better academic performance and that learners are aware that these processes can be used for improving their learning process,
-   orientation of a learner, that can find feedback during the learning process.

5.   RESEARCH - LEARNING GOALS

Goal setting involves establishing a standard or objective to serve as the aim of one's actions (Schunk, 2001)*. Goals are involved across the different phases of self-regulation: forethought (setting a goal and deciding on goal strategies); performance control (employing goals-directed actions and monitoring performance); and self-reflection (evaluating one's goals progress and adjusting strategies to ensure success* (Zimmerman, 1998; as cited in Schunk, 2001). Setting learning goals does not mean benefits only for students, but also for teachers or lecturers. Cwikla (2003, p. 43–44) claims, that *research on effective teaching is guided by the learning goals for students, and how these goals can best be achieved.*

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The purpose of this research was to collect data and also to raise awareness among the students about the importance of learning to learn as a competence and setting their own learning goals or achievements.

The participants of this study were postgraduate student (a selected group of students) enrolled in knowledge management related course in the International school of business and social sciences in Celje in Slovenia. We only partially can ensure objectivity, because of the sample. The research was qualitative, a questionnaire with open questions for students. In order to satisfy the rule of triangulation we used three methods of collecting data: review of the literature that exists on this topic (presented in the previous chapters), qualitative research with a questionnaire with open questions for students (presented in this chapter) and examination of the documentation - syllabuses of all courses that this selected group of students is taking in this academic year (more about that in conclusion). The method of data analysis was generating and analyzing the data collected during the research.

We did a workshop with a group of students. We asked them about priority goals or academic achievements which they want to achieve before they leave the faculty and what methods they and their lecturers should use to achieve these goals. Below we listed some examples.

1.   A broader view on knowledge.
Students want to be able to identify current knowledge, introduce innovations on a global level and that they are able to update their knowledge. In their view this means that they are able to detect which knowledge is "current" and which is "old" and to replace this old knowledge with current knowledge. Students believe that to achieve this goal, the most appropriate activities are active work (round tables with experts, discussions, exercises, lecture ...) and the study of literature.

2.   The ability to acquire knowledge.
The most important part of the acquisition of knowledge, according to the students, is ability to find knowledge. They particularly stressed the importance of finding and reading a lot of literature and having the knowledge about information tools. They also recognize the importance of lifelong learning. To gain knowledge faculty provides quality and interesting lectures, mentoring students and enabling them access to resources and literature.

Students believe that to achieve this goal, appropriate activities are: exploration and study of literature, writing papers, active participation in lectures, discussions …

3.   The ability to transfer knowledge.
Students are aware of how important it is that they are able to share the knowledge, and sharing always has to be professional. They believe that this goal can be achieved with good examples and good practice which they receive from lecturers.

4.   The ability to transfer theory into practice.
Students believe that the ability to transfer theoretical knowledge into practice is the key to their successful career. They believe that this goal can be achieved through public seminar presentations, project work, practical work and good practice that they get from lecturers.

5.   A good knowledge of methodology.
Students recognize the importance of the use of methodology and programs that are used for analysis. This can be achieved by using statistical programs in classroom and with lecturing about different ways of researching.

6.   The ability to work in teams and communication.
Students believe that the successful teamwork is important, that appropriate work is divided among team members, that there is an appropriate communication and that the group is aiming towards common decisions.

At the same time, students also emphasized the importance of proper communication, knowing that in today's society, adequate communication is the key to success.

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Students believe that to achieve this goal, appropriate activities are: teamwork (frequent team-based tasks) and discussions among team members. The globalized world is fraught with cooperation and teamwork; therefore students believe that they should be able to search for common views with others in a team.

6. CONCLUSION

According to our workshop results, students highlighted (in their point of view) five essential learning goals they should achieve before they leave the faculty: a broader view on knowledge, the ability to acquire knowledge, the ability to transfer knowledge, the ability to transfer theory into practice, a good knowledge of methodology and the ability to work in teams and communication. This shows us that students are aware of their own learning and their abilities and gives us a very positive incentive to further work with students. If a lecturer knows what learning goals students want to achieve, he or she can help them achieve those goals by understanding their needs and using adequate teaching methods. From what students said about learning, we can conclude that knowledge is really one of the most important values and ability to learn is one of the most important skills in our society. Learning theories show different views on learning. Through understanding learning we can understand the competence learning to learn and through all that we can understand the importance of setting learning goals. When individuals understand the concept of learning to learn and know how to apply this knowledge in practice, they can expect a lot of positive effect on their learning process and learning outcomes. And most importantly when students understand all this, they are able to set their own learning goals and desired learning outcomes inside the formal learning goals of a subject or school program. We also wanted to compare the methods, that students highlighted as those that contribute to high quality learning (and which students and their lecturers should use to achieve these goals) with learning and teaching methods written in syllabuses of the courses. From all this data collected, we can conclude, that methods which students highlighted as those that contribute to high quality learning, are mostly in accordance with methods written in syllabuses. For example these learning and teaching methods (from syllabuses): conversation/discussion/debate, case studies, work in smaller groups or pair work, independent students work, different presentation, solving exercises, inviting guests from companies and field work (e.g. company visits). However, we cannot neglect the use of frontal teaching and explanation as teaching methods frequently used in courses. Further research of this topic could go in the direction of determining how many of these goals, the students actually achieved before they leave the faculty.

REFERENCE LIST

1. Ažman, T. (2008). *Učenje učenja - kako učiti in se naučiti spretnosti vseživljenjskega učenja. Priročnik za učence, dijake, učitelje, razrednike in svetovalne delavce.* Ljubljana: Zavod RS za šolstvo.
2. Bakračevič Vukman, K. (2010). *Psihološki korelati učenja učenja.* Maribor: Mednarodna založba Oddelka za slovanske jetike in književnosti, Filozofska fakulteta, Univerza v Mariboru.
3. Cwikla, J. (2003). The Importance of Setting Learning Goals to investigate the Effectiveness of Teacher Professional Development. *Educational Research Quarterly, 27*(2), 43–59. Retrieved from:
   http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED468485&ERICExtSearch_SearchType_0=no&accno=ED468485
4. James, M., Black, P., Carmichel, P., Conner, C., Dudley, P., Fox, A., Frost, D., Honour, L., MacBeath, J., McCormick, R., Marshall, B., Pedder, D., Procter, R.,   Swaffield, S. & Wiliam, D. (2006). *Learning How to Learn: tools for schools*. New York: Routledge.
5. Hofmann, P. (2008). Learning to learn: a key-competence for all adults?. *Convergence, 41*(2–3), 173–181. Retrieved from:
   http://splet03.izum.si:2105/docview/204605679/fulltextPDF/13C539DB7CC7ECFD72B/1?accountid=31309
6. Ikehara, H. T. (1999). Implications of gestalt theory and practice for the learning organisation. *The Leading organisation, 6*(2), 63–69.
   http://www.emeraldinsight.com/journals.htm?articleid=882567&
7. Lončarič, D. & Peklaj, C. (2008). Proaktivna in defenzivna samoregulacija pri učenju. V *Psihološka obzorja, 17*(4), 73-88. Pridobljeno: http://psy.ff.uni-lj.si/iGuests/Obzorja/Vsebina1/Vol17-4/loncaric.pdf

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Knowledge Management & Innovation
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8. Marentič Požarnik, B. (1998). Kako pomembna so pojmovanja znanja, učenja in poučevanja za uspeh kurikularne prenove (prvi in drugi del). *Sodobna pedagogika*, *49*(3 in 4), 244–261, 360–370.
9. Marentič Požarnik, B. (2000). *Psihologija učenja in pouka*. Ljubljana: DZS.
10. Mesároš, P., Mesárošová, M., and Mesárošová, L. (2012). Learning to learn competency, metacognitive learning strategies and academic self-concept of university students. *International Journal of Arts & Sciences, 5*(2), 489–497. Retrieved from: http://splet03.izum.si:2105/docview/1285162030/fulltextPDF?accountid=31309
11. Pečjak, S. & Košir, K. (2003). Pojmovanje in uporaba učnih strategij pri samoregulacijskem učenju pri učencih osnovne šole. V *Psihološka obzorja, 12*(4), 49–70. Retrieved from: http://psy.ff.unilj.si/iGuests/Obzorja/Vsebina1/Vol12-4/pecjak_kosir.pdf
12. Plut - Pregelj, L. (2004). Konstruktivistične teorije znanja in šolska reforma: učitelj v vlogi učenca. V B. Marentič Požarnik (ur.), *Konstruktivizem v šoli in izobraževanje učiteljev* (str. 17–40). Ljubljana: Center za pedagoško izobraževanje Filozofske fakultete.
13. Rozman, B., Ivanuš Grmek, M. & Bakračevič Vukman, K. (2012). Komunikacija pri pouku kot pomemben dejavnik razvijanja kompetence učenje učenja. *Didactica slovenica - Pedagoška obzorja, 27*(3–4), 80–98.
14. Schunk, D. H. (2001). *Self-Regulation through Goal Setting*. ERIC/CASS Gigest. Retrieved from: www.tourettesyndrome.net.
15. Stringher, C. (2006). Learning competence: an Italian exploratory research in elementary schools. *Research Network on Learning to learn: Second Network Meeting Report.* U. Fredriksson and B. Hoskins (ur.). Ispra: CRELL. http://crell.jrc.ec.europa.eu/download/Conferences/L2Lnw2.pdf
16. Tomec, E., Pečjak, S. & Peklaj, C. (2006). Kognitivni in metakognitivni procesi pri samoregulaciji učenja. *Psihološka obzorja*, *15*(1), 75–92. Retrieved from: http://psy.ff.uni-lj.si/iGuests/Obzorja/Vsebina1/Vol15-1/tomec.pdf
17. Wang, V. C. X. (2012). Understanding and Promoting Learning Theories. *International Forum of Teaching and Studies, 8*(2), 5–11. Retrieved from: http://splet03.izum.si:2105/docview/1179004267/fulltextPDF/13C61FA7C47488544B7/1?accountid=31309