Promoting Eflective Thinking in Esp Teaching

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Annotation. The paper presents some ways of fostering student's reflective thinking in learning English for specific purposes. It also describes the key aspects of reflective thinking in connection with metacognitive awareness and presents the most widely used techniques in self-assessment and self-management skills, such as evaluation sheets, learning diaries and portfolios which are wide-ranging in ESP learning/teaching context. The article focuses on self-assessment in portfolio use and students' need to self-evaluate their learning process and emphasizes the increased awareness of learning and teaching styles. Reflective thinking as central to students' self-evaluation is described as the use of those cognitive skills or strategies that increase the probability of a desirable outcome. Critical thinking is a shift from teaching students' facts and what the teacher knows to teaching students how to think for themselves.

Introduction

What do we mean when we talk about reflection in the teaching and learning process? Reflection is considered to be an important part of the learning process and there are many theories about what reflection is and why it is so important especially for learning from experience, developing the skills of professional practice and for the development of metacognitive skills which are said to enhance learning. Reflection, in the sense defined by the Oxford English Dictionary as 'thinking deeply or carefully about', is a term used frequently in everyday language. We usually think it will involve looking back over ideas or experiences, and consider ourselves 'reflecting' rather than just thinking' in situations where the material is complicated and we don't really know what the outcome will be. In the field of reflective practice, reflection is described as a type of thinking about which enables a kind of problem solving involving the construction of an understanding and reframing of the situation to allow professionals to apply and develop the knowledge and skills of their profession. Reflection is also considered to play an integral role in learning from experience and a number of researchers have developed learning cyc-

les where the learners have a 'learning experience' and then reflect on this. Kolb (1984) for example suggests that the reflection allows the learners to form abstract concepts from their experience in order to guide active experimentation and further learning experiences. Does learning experience encourage reflection and metacognition? Having different interpretations of these theories in mind there could be many answers to this problematic issue. That is why the **purpose** of this article is to show the connection between the increase of reflective thinking and self-directed ESP learning. The **object** of the paper – ESP self-directed studies at a tertiary institution.

The main tasks of the research were:

1. To reveal students' readiness to take responsibility for their autonomous studies;
2. To disclose the connection between self-techniques of autonomous studies and reflective thinking;
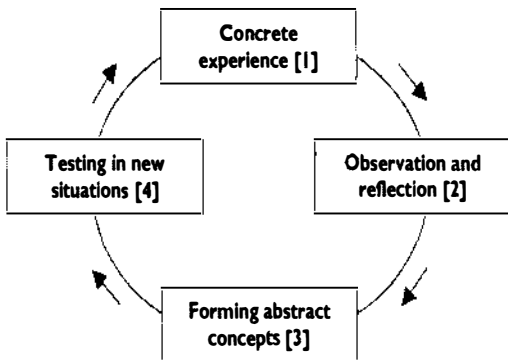3. To analyze some means and techniques of promoting reflective thinking is ESP studies.

Methodology and methods. Training students to do critical thinking is not an easy task. Teaching which involves higher level cognitive processes, comprehension, inference, and decision making often proves problematic for students. Such instruction is often associated with delays in the progress of a lesson, with low success and completion rates, and even with direct negotiations by students to alter the demands of work. Despite the difficulties, many teachers are now promoting critical thinking in the classroom. They are nurturing this change from ordinary thinking to good thinking admirably. They are: promoting critical thinking by infusing instruction with opportunities for their students to read widely, to write, and to discuss; frequently using course tasks and as-

signments to focus on an issue, question, or problem; and promoting metacognitive attention to thinking so that students develop a growing awareness of the relationship of thinking to reading, writing, speaking, and listening – four main skills in language learning. In order to enhance reflective thinking we have chosen self-directed studies as learning environment. Thus, **the main hypothesis** of the research is: self-directed studies in ESP promote reflective thinking when students are given the possibility to be responsible for their learning. Reflective thinking is central to student's self-evaluation. In his book, *Experience and Education*, John Dewey describes reflective thinking as the necessary step that must come between impulse and action if intended purposes are to be achieved. Here we look more closely at the process of working with others (or ourselves) to deepen learning. In particular, we explore emancipating and enlarging experience. Experience entails thought. It includes reflection. In order to emancipate and enlarge experience, we must attend to both having and knowing the nature of reflection – here we look at remembering, attending to our feelings, and building new understandings. This is a process central to our work – learning from experience according to a famous circle of experiential learning according to Kolb (see picture 1).

In the pedagogical process different kinds of experiences (life experience, socio-cultural experience, and linguistic experience) are often missed and not taken into account. At the same time we can admit that quite many teaching situations avoid paying much attention to feelings learners have in the process of learning. For these reasons, the whole system should be observed, analyzed and taken for granted. Four main categories – steps are discussed in the circle of experiential learning:

- Concrete experience;
- Observation and reflection;
- Forming abstract concepts;
- Testing in new situations.

Categorizing critical thinking by common features at least two general views can be presented: (1) intentional use of higher order thinking skills and (2) metacognition. Angelo (1995) concluded, "Most formal definitions characterize critical thinking as the intentional application of rational, higher order thinking skills, such as analysis, synthesis, problem recognition and problem solving, inference, and evaluation" (p. 6). Others take the position that critical thinking is metacognition, awareness of ones own thinking. Beyer says that the thinker must have the following skills: critical thinkers are skeptical, open-minded, value fair-mindedness, respect evidence and reasoning, respect clarity and precision, look at different points of view, and change positions when reason leads them to do so. To think critically, some criteria or some standards must be applied. Critical thinking involves identifying, evaluating, and constructing arguments. Critical thinkers view phenomena from many different points of view. It should be said that critical thinking uses many procedures, such as asking questions, making judgments, and identifying assumptions.

In education, the term 'metacognition' can be defined as "awareness of one's own knowledge or problem-solving abilities." In an effort to enhance learners' metacognitive ability, a number of researchers have explored ways to induce learner reflection on instructional content and activities.

Speaking about learners, it could be said that they can improve learning themselves for the achievement of specific goals when self-direction is reached. For this reason, Davidson and Deuser (1994) identified four metacognitive processes that include:

- Identifying and defining the problem;
- Mentally representing the problem;
- Planning how to proceed;
- Evaluating what you know about your performance.

As we can see, metacognition focuses on those elements of thinking that contribute to student's awareness and understanding of being self-directed and self-regulatory. By developing curriculum, pedagogical and assessment practices that help students develop metacognitive processes, teachers can promote more profound learning opportunities for their students.

In terms of reflective thinking, particular pedagogical principles should be taken into account and they could be expressed as pedagogical aims which are reflected in a process curriculum that develops this reflective capacity. On the other hand, similarly, there could be pedagogical implications for the development of reflexivity in the use of portfolios for assessment and learning purposes. It could be said that portfolios constitute reflections. Thus, the

Picture 1. A well-known way of describing experiential learning takes the form of a circle. Experiential learning (after Lewin and Kolb, 1984)

pedagogical approach that is needed requires teachers (Val Klenowski, 2002):

- to assist students in the inquiry of their own learning to identify their strengths and areas for improvement;
- to teach students about the importance of evidence and the quality of that evidence in relation to the particular purpose of the portfolio;
- to help students develop the ability to select evidence in relation to criteria and standards;
- to develop a constructive culture of critique;
- to encourage students to be reflective about their learning;
- to facilitate learning and be a guide rather than a provider of information.

A careful self-evaluation and monitoring of teaching and learning strategies by teachers provides quality information that can be used to examine growth and progress. Vavrus and Collins (1991) also found that teachers engaging in the process of portfolio development appeared to become more reflective about their teaching practices "particularly in terms of critiquing the effectiveness of instructional methods in addressing individual student's needs". Teachers claimed that combinations of different types of documents such as examples of students work, video-tapes of teaching practice, lesson plans and teaching aids, helped to trace development of teaching from planning to practice and evaluation. Lyons (1998) illustrates how the pre-service teacher "finds in conversation an opportunity to look at and reflect on her experiences, to go beyond the entries of her portfolio, to see and make connections about her teaching, her students' learning, and the growth and development as a reflective practitioner". Snyder and Lippincott (1998) indicates that reflection is made possible in the portfolio process because there is a requirement to document thought and practice as they co-evolve. Students choose from a collection of work and reflect upon concrete evidence of their thinking and experiences at various points throughout their professional preparation year. This is how they make their own progress and their own growth visible to themselves. Research findings suggest (Shulman, 1998; Lyons, 1998) that when students create their portfolios they develop important skills such as:

- critique;
- reflection;
- self-evaluation.

Students need to understand and be able to develop criteria to determine the quality of evidence they select. Different data can be collected for documentation of attitudes, behaviors, achievement, improvements, thinking and so on. Thus, the portfolio can provide a structure and process for documenting, reflecting and making public learning and teaching practices. For this reason, training for both, students and teachers is needed. There cannot be any separate development of portfolio approach. Quite a broad range of learning outcomes (increased awareness of learning and teaching styles, awareness of high standards and professional standards, self-evaluation for improvement purposes and etc.) requires assessment that will provide good opportunity for the development, practice and evaluation of these skills, understandings and attitudes. The type of portfolio is dependent on the particular purpose and audience but the process of portfolio is common to all types. It includes critical self-evaluation, interview or learning conversation, reflection about one's own learning throughout portfolio development. These learning and pedagogical processes can help to facilitate metacognitive development.

Student's self-evaluation, or self-asses-

sment, refers both to a written product and to the thinking and writing process that takes place when students write. As products, self-evaluations contain tangible descriptions and analysis of students' learning. As a process, self-assessment assignments ask students to reflect on, in writing, what they have learned. Self-evaluation tasks may be simple – a one-minute, in-class writing assignment – or quite complex – an end-of-the-program summative evaluation. In more complex uses, we may ask students to evaluate the quality of their work or effort, think about its importance or usefulness, make connections with other courses, or describe problems encountered and questions raised.

There are a lot of techniques used to describe the implementation of learning journals to facilitate reflection. Of particular use is the list of the different purposes of using writing journals, including ideas such as:

- To record experience
- To develop learning in ways that enhances other learning
- To deepen the quality of learning, in the form of critical thinking or developing a questioning attitude
- To enable the learners to understand their own learning process
- To facilitate learning from experience
- To increase active involvement in learning and personal ownership of learning
- To increase the ability to reflect and improve the quality of learning
- To enhance problem-solving skills
- As a means of assessment in formal education
- To enhance professional practice or the professional self in practice
- To explore the self, personal constructs of meaning and one's view of the world. To enhance the personal valuing of the self towards self-empowerment as a means of slowing down learning, taking more thorough account of a situation(s)
- To enhance creativity by making better use of intuitive understanding
- To provide an alternative 'voice' for those not good at expressing themselves
- To foster reflective and creative interaction in a group

Teaching Critical Thinking. The question arises whether critical thinking can be taught. Whether or not generic instruction can be taught and transferred to specific domains is an important concern. If schools invest a lot of time and energy in generic strategies, and there is no payoff, they will suffer the penalties. A great deal of time and space is devoted to discussing the importance of critical thinking and defining it, but not how to teach it. In theory, critical thinking is a shift from teaching students' facts and what the teacher knows to teaching students how to think for themselves. Some techniques are given here by Angelo (1995) to help students to develop their critical thinking:

- Let them know what they're in for. On the first day of class, spell out as completely as possible what your philosophy of education is, how you are going to structure the class and why, why the students will be required to think their way through it, why standard methods of rote memorization will not work, what strategies you have in store for them to combat the strategies they use for passing classes without much thinking.
- Design coverage so that students grasp more. Plan instruction so students attain organizing concepts that enable them to retain more of what you teach. Cover less when more entails that they learn less.
- Speak less so that they think more.

- Don't simplify but teach them instead how to read the text for themselves, actively and analytically. Focus, in other words, on how to read the text not on "reading the text for them".
- Focus on fundamental and powerful concepts with high generalizability. Don't cover more than 50 basic concepts in anyone course.
- Present concepts, as far as possible, in the context of their use as functional tools for the solution of real problems and the analysis of significant issues. We can name a lot of techniques for developing these strategies but the reality dictates its own policy and the real learning/teaching situation should be taken into account.

Students who learn to assess the credibility of facts and search for more facts and alternatives do not necessarily employ critical thinking. On an individual basis, some students are incapable of critical thinking until they reach a certain level of maturity. Despite efforts to enhance critical thinking, most students are subjected to a curriculum that requires the memorization of facts and uncritical acceptance of information in lectures and textbooks. Without attention to the research or the processes by which the academic community and scholars arrive at their conclusions, students do not have the information or the skills to question the conclusions. They are in the position of accepting, at face value, the "knowledge" presented to them by their teachers and their textual sources. Students do not ordinarily have the information or the experience to foster a different set of assumptions, and so they are encouraged or forced to accept that which is presented to them, especially if memorization of such content is evaluated and rewarded on tests.
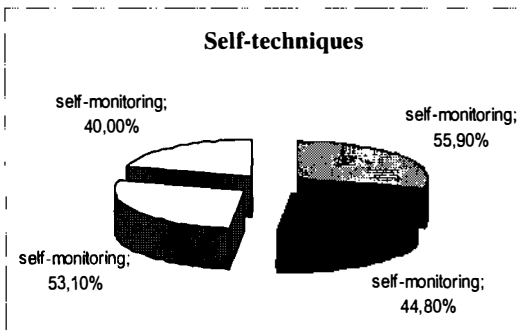
It is believed that self-reflection is the transformative agent of student's self-evaluation. Not only are students asked to think about what they have learned, but they are also asked to think about it in relation to themselves and their own process of learning. By allowing students' subjectivity into the educational arena, and by making it an expectation, we provide students with an opportunity to experience themselves as knower, as people who have the right to claim a voice, an identity, an authority. Learning thus becomes an active, meaningful process and one that is about the learner as well as the content area studied. When we invite students to bring themselves into the educational arena, we make it richer for them and for us.

Student self-evaluations cultivate an attitude of inquiry and foster self-directedness – we hope to foster in students the capacity for lifelong, independent learning and a curiosity about the world and themselves. Self-assessments ask students to create an active relationship with course material. Students may discover what they have learned, develop questions for further study, identify learning needs, and more actively direct their education.

- * Self-evaluations integrate learning – we hope students will carry what they learn into their lives. The act of reflecting on one's learning, looking back on it and describing it to another person, embeds it more deeply in memory.
- * Self-evaluations deepen a sense of meaning and relevance – we want students to make sense of things, not just carry away a random collection of facts and information. When students explore the meaning of what they have learned, they often discover its relevance – how ideas apply to real life or explanations for their own experiences.
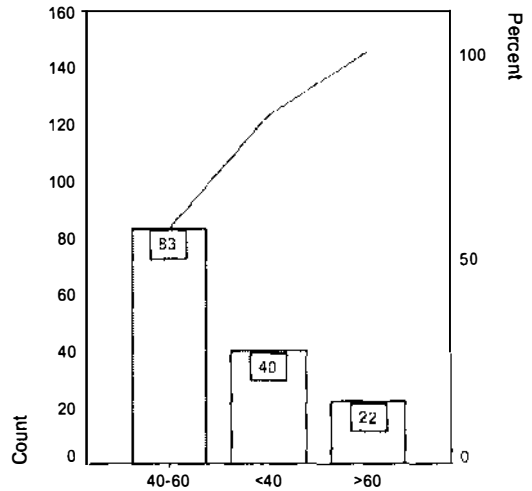
* Self-evaluations validate and cultivate the student's voice and authority – we hope students will learn to think for themselves. Self-assessment provides a direct and immediate way for them to do just that. By providing an audience to students' reflections, we give them explicit permission to speak authoritatively

Research results. A pedagogical experiment was conducted in Vilnius Gediminas technical university. Students of Business Management faculty were given the possibility to self-direct their studies. Self-directed studies were chosen as a basis for the development of reflective thinking when students are given the possibility to act on their own in the learning environment. From the graph1, we can see that from all the techniques to increase their autonomy, students tend to use one of the most popular individualization technique-self-monitoring of their studies. Almost 60% of respondents are willing to use it. As self-assessment is the basic element in reflective thinking, students were asked to express their attitude towards this technique. Only 40% of respondents are able and willing to self-assess their learning process. Self-pacing and self-controlling occupy almost equal quantity of time.
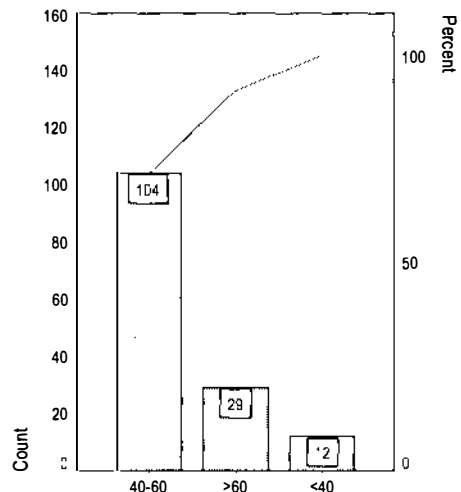
From the graph 2, some conclusions can be drawn that autonomous work or studies in our case should be encouraged and promoted. Before the experiment only 12% of respondents were willing to take responsibility for their studies and use language portfolio to register their studies. After the encouragement of self-direc-

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Graph 2. Comparison of the need for autonomous studies before and after the experiment

Graph 1. Self-techniques of autonomous studies

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ted strategies, 40% of students expressed the need for autonomous work and wish to be responsible for their learning process while registering their learning progress.

While analyzing basic parameters of autonomous language learning, a number of external factors (structure and design of a lesson, learning environment) influencing students' reflective thinking were established and statistical significance between them was found. It is interesting to note that design (of classroom activities) correlates significantly with responsibility ($p = .000; r = 42$) and with motivation ($p = .000; r = 53$). It means that learning environment influences students' motivation and responsibility. The necessity for structure is expressed by a lot of students. Good structure of a learning process shows strong causality relations with motivation ($p = .000; r = 31$), learning environment ($p = .008; r = 22$) and authority – necessity for teacher's interference ($p = .000; r = 50$), a weaker correlation was revealed with responsibility ($p = .018; r = 20$). It means that structured learning process doesn't encourage students to take responsibility for their studies. Thus, the main hypothesis was proved that self-directed studies in ESP promote reflective thinking when students are given the possibility to be responsible for their learning.

Conclusions. Having analyzed some data and having reviewed some references, the following conclusions could be drawn:

1. The practice of student self-assessment carries the possibility of creating a dynamic, interactive environment on several levels:
- between student and teacher,
- learner and learning,
- learning and knowledge,
- and knowledge and action.

2. Self-directed ESP studies foster reflective thinking when students take responsibility for their actions.

3. Reflective thinking should be fostered and encouraged by the teacher;

4. Learning diaries, journals, portfolios are the best techniques to help students to foster their reflection and metacognitive awareness.

5. There should not be too much of teachers intervention in the learning process as well designed and structured studies lead students to less responsibility and discourage reflection.

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REFLEKSYVAUS MĄSTYMO SKATINIMAS MOKANT SVETIMOSIOS KALBOS (ANGLŲ)

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S a n t r a u k a

Refleksyvus mąstymas – tai mąstymas giliau ir atidžiau, tai yra probleminių situacijų sprendimas apgalvojant ir analizuojant kiekvieną detalę ar klausimą. Pagrindinė tyrimo hipotezė: svetimosios kalbos autonominės studijos skatina refleksyvųjį mąstymą, kai studentams suteikiama galimybė prisiimti atsakomybę už savo studijas. Studijose akcentuojamas refleksyvus mąstymas ir praktinės patirties savianalizė.

Po kiekvienos sesijos atliekamas mokymo ir mokymosi įvertinimas, kurio tikslas – gauti grįžtamąjį ryšį ir tobulinti mokymosi procesą. Visi besimokančiųjų pasiekimai kaupiami „portfelyje". Jame savo komentarus ir vertinimus pateikia dėstytojas ar „mentorius". „Portfeliu" remiasi ir baigiamasis įvertinimas. Atliktas tyrimas rodo, kad studentai turi būti skatinami prisiimti atsakomybę už savo studijas ir savarankiškai registruoti savo mokymosi pažangą.

Kuo daugiau studentams suteikiama atsakomybės, tuo labiau jie yra pasirengę autonominėms studijoms. Pažymėtina, kad dizainas stipriai koreliuoja su atsakomybe (p= .000; r= .422**) ir su motyvacija (p = .000; r = .529**). Vadinasi, mokymosi aplinka turi įtakos studentų motyvacijai ir atsakomybės jausmui. Atlikus tyrimą, galima tvirtinti, kad struktūrizacijos būtinybę išreiškia maždaug pusė studentų. Gera mokymosi proceso struktūra rodo stiprų koreliacinės struktūros ir motyvacijos (p = .000; r = .308**), mokymosi aplinkos (p = .008; r = .218**) ir dėstytojo intervencijos būtinumo (p= .000; r = .502**) ryšį, kiek silpnesnė atskleista koreliacija su atsakomybe (p= .018; r = .196*). Vadinasi, gerai struktūrizuotas mokymosi procesas neskatina studentų prisiimti atsakomybės už savo studijas bei stabdo refleksyvųjį mąstymą.