

# Learning foreign languages at university level in the context of constructivist paradigm

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*The article presents an investigation of learning foreign languages at tertiary level from the constructivist perspective and reports the findings of the research carried out at five universities in Lithuania. The sample of the research included 972 first-year students from 25 major studies; the investigation was aimed at examining (1) the methods of learning English as a foreign language that students are aware of; (2) the status quo of students' metacognition; (3) relations of variables with the assessment environment that students are familiar with at the initial stage of university studies. The data were analysed using statistical methods of descriptive statistics, distribution frequencies and correlation statistics.*

## Introduction

Striving for better learning for all and doing it in the most effective and efficient way has become a priority in the post-modern education all over the world. Constructivism, as a new theory of learning has become a driving force behind the new developments on all levels of education. In the paradigmatically stable situation of about two decades ago, a new kind of thinking emerged with nothing less than the claim to represent a new approach in general didactics – the constructivist didactics that bases itself on different aspects of constructivism in epistemology, on

analogous arguments in the theory of general systems, partly on micro-sociological theory (social constructivism), but particularly on the concepts of brains physiology and cognitive science (Terhart, 2003).

The analysis of foreign literature proves that the constructivist understanding of teaching and learning, of instruction and didactics, manifests itself as an international development with the background in didactic developments in specific subject matter areas as well as in certain developments in psychology of learning and instruction and that in particular, this approach was formulated and tested in the field of teaching mathematics and science

before it has become explicitly present in general didactics (Duffy and Jonassen, 1992; Tobin, 1993; Steffe and Gale, 1995, cited in Terhart, 2003).

The last two decades in teaching and learning foreign languages, that roughly coincide with the evolution of the communicative approach, have seen the development of a number of teaching innovations, including the evolution in syllabuses (the notional/functional syllabus, the process syllabus, the procedural syllabus), the change in approaches to learning (the learner-centred approach), the change in learning-teaching methods (task-based language teaching and learning, problem-based learning, project-based learning, portfolio-based learning), and in assessment (formative assessment used in combination and / or instead of traditional summative assessment). A plethora of evidence supports the usefulness of these changes in contributing to a better understanding of theoretical issues related to establishing a tradition of innovation research and practice (Barfield, 2003; Gupta, 2004; Shapiro, 2003; Fullan, 1982; Nicholls, 1983; Rudduck, 1991; Cooper, 1989, cited in Markee, 2003).

In Lithuania different aspects of the constructivist paradigm in teaching and learning have been recently studied by several researchers. Constructivist learning strategies of cooperative learning have been explored by M. Teresevičienė and G. Gedvilienė (1999; 2003); innovative methods of learning and teaching have been analysed by V. Janulevičienė (2004), L. Kaminskienė (2004), N. Burkšaitienė and M. Teresevičienė (2004). However, constructivist developments in learning foreign languages at university level have not been empirically investigated much. Therefore, the **object of the present research** is learning foreign

languages at university level. The **aim of the research** is to explore the methods of learning foreign languages and the assessment environment that students are aware of at the initial stage of university education from the constructivist perspective. The **methods of the research** include literature analysis, survey and statistical data analysis. **Research hypotheses are:** at the initial stage of university studies (1) awareness of traditional methods of learning a foreign language (English) prevails; (2) students' metacognitive skills are underdeveloped; (3) there exists a relation between students' satisfaction with their results and the assessment environment they face. The **aim of this paper** is to report the outcomes of the study carried out at five universities in Lithuania aimed at: (1) examining the methods of learning a foreign language (English) that the first year students are aware of; (2) analysing the status quo of students' metacognition learning English as a foreign language at the initial stage of university studies; (3) studying relations of variables with the assessment environment that learners are familiar with at the initial stage of university studies.

## **1. Theoretical background of the constructivist approach in didactics**

Extensive literature review provides evidence that constructivist didactics bases itself by drawing on different kinds of levels and areas of theory and arrives at a structure of core statements which include strategic practical recommendations for teaching and certain general normative assumptions in regard to education as such. According to Terhart (2003, 26), there exist "four theoretical contexts representing the background for constructivist didactics: radical constructivism, the neurobiology of cognition, systems theories,

and the current conceptions of learning developed in the field of cognitive psychology". For the purpose of the present study we will focus on the current conceptions of learning.

### *The current conceptions of learning*

The traditional behaviourist understanding of learning started with the assumption that learning should be externally controlled and deliberately ignored internal mental processes. This approach was followed by an expanded form of behaviorism, which was the result of the cognitive revolution at mid-20<sup>th</sup> century, based on the understanding of learning as information-processing, i.e. learning is perceived as a process of mediating between perceived pieces of information from the external world on the one hand and the action and decision-making process of the learner facing the external world on the other hand. However, due to the fact that at the centre of this approach was the belief that many things can be received and processed directly while other things can be processed only after a certain internal structure has been built up, the information-processing approach remains basically a kind of behaviourism, even though the learner himself/herself has become an active internal agent with a higher degree of freedom in his/her actions.

A qualitatively new approach to learning is related to the theory of constructivism that focuses on the concept that knowledge, contents, abilities, etc are neither absorbed nor acquired, but constructed. Accordingly, learning is understood as an independently performed activity that is very dependable on the situation and the context in which it takes place. Bruner (1966) states that the central idea in the theory of constructivism is that learning is an active process in which learners construct new ideas or concepts, select and

transform information, construct hypotheses, and make decisions relying on a cognitive structure (cited in Mahoney, 2003). However, it is important to notice that the construction process never starts at ground zero, but always has its basis in an already-existing knowledge (structure) that in the widest sense is experience. Therefore, it is the learner who can make his/her learning present to oneself by monitoring one's learning process in the sense of forming a metacognitive conception of how one learns, under what conditions one learns best, how to improve learning, etc. In this way, reflexive comprehension of one's own learning becomes both a developing and structuring element in learning itself (Terhart, 2003). Thus, the evolution of the understanding of learning that started with the idea of learning as controlled by external factors has shifted on to the idea of learning as influenced by internal factors based on the metacognitive level of the conception about one's own learning. This in turn, has caused the shift from the learner's passive participation in the learning process to an active or hyperactive participation (Terhart, 2003).

## **2. Principles of constructivist instruction**

Since the constructivist theory of learning considers that there can be no absolute knowledge and no absolute truths, human knowledge should always be regarded only as a currently adequate, currently useful result of the socially shared constructive process. In this way, teaching can stimulate learning in which the central role belongs to the learner who constructs and reconstructs his/her inner world in a certain social context. Hence, it is meaningless to try to teach others on the basis of the model of transmitting and receiving information. The theory

of teaching/instruction under the theory of constructivism is grounded on the following major principles: (1) the teaching contents; (2) the teaching goal; and (3) the teaching strategies.

### *2.1. The teaching contents*

In terms of contents to be learned, instruction has to look at complex problem domains that are close to the real life and occupations and have to be dealt with holistically. The foundation of teaching should not be simplified problem formulations but rather problems presented in a complex context (Dubs, 1995, cited in Terhart, 2003, 36) or as Meixner (1997, 97) puts it, the units of knowledge that are to be learned should be put into a situative context (cited in Terhart, 2003, 36). This is due to the fact that one can only understand something if one grasps it in its complex total context. Therefore, teaching is understood as the practice that creates environments stimulating learning through which independent learning can be facilitated in the form of constructing and reconstructing knowledge and gaining insight and understanding of one's own learning. The learning environments including instructional materials, classrooms, media, the school itself, etc have to be structured in such a way that they take into account the situation-based and constructive character of learning. As to the learning materials they should be relevant context materials and as authentic as possible. The contents to be learned are most challenging when they are adjusted to the real experience and the interests of the students.

### *2.2. The teaching goal*

The teaching goal in constructivist teaching is guided by the fundamental principle that the

learner himself/herself should construct one's own knowledge that is aimed at its flexible application. The teaching aims are to develop skills or abilities that can be used in real life (Wolf, 1994; Dubs, 1995, cited in Terhart, 34, 35).

### *2.3. The teaching strategies*

As educators in a constructivist classroom focus on engaging in an active dialogue with the learners trying to bring the learner to the point where she builds his/her knowledge autonomously, the most favourable teaching strategies include **self-directed learning** and **cooperative learning** which are of great importance because only the discussion of an individual interpretation of a complex learning situation, of a proposed hypothesis or a possible solution contributes to high rank thinking and reflection about one's own learning, interpretations of meaning or helps one to structure what one has already learned. In this sense learners regulate their learning themselves and keep it constantly going. Discussions held in small groups are meaningful in the sense that wrong reasoning may be corrected and this has the effect of promoting understanding. Therefore, the strategies of self-directed learning and cooperative learning foster metacognition in general, i.e. the development of always individual thinking tools as well as generally becoming aware of one's own thinking and learning as well as its processes. What is more, these strategies foster metacognition in particular, which means that the development of individual thinking tools will be further promoted and will contribute to the growth of the learner's characteristic style of learning and one's own metacognitive abilities.

### 3. Research methodology and organisation

#### *Subjects*

A sample of 972 students in the first year of their four-year Bachelor degree full time studies at five universities in Lithuania, including Mykolas Romeris University, Vilnius University, Vilnius Pedagogical University, Vilnius Gediminas Technical University and Klaipėda University, participated in this study. The respondents were majors of 25 different studies and had a mandatory course of English for Specific Purposes (ESP) at their universities. By gender, 628 students were female and 343 were male (one student did not identify gender in the survey). By age, the sample was heterogeneous; the average age being 18,64 years ranging from 17 to 28. The majority (92%) of students belonged to the age group of 17–19 (49% among them were 19, 42% were 18, and 1% of respondents was 17); the rest respondents belonged to the age group of 20–28, the oldest respondent being 28; twenty-five respondents did not present any information on their age.

#### *The instrument*

The questionnaire used for the present study consisted of three sections and was administered during the first week of ESP courses at all universities. Sections I-II were specifically designed for the survey by the author of the research to collect demographic data about the respondents (section I); to examine the methods of learning a foreign language (English) that the research participants were aware of; and to analyse the study participants' metacognitive skills present at the initial stage of university studies (section II). Section III (a five-point Likert-type scale ranging from

'strongly agree' to 'strongly disagree') was a modified version of Ramsden's instrument (Ramsden, 2000) and was used to explore the assessment environment that the students were familiar with at the beginning of their university studies.

The instrument reliability analysis was carried out and showed a positive Cronbach alpha coefficient – 0.79. Research data were analysed using statistical methods: demographic data, the data on the students' awareness of the methods of learning a foreign language (English) and on the participants' metacognitive skills were analysed with descriptive statistics and distribution frequencies; as correlation statistics (Pearson correlation coefficient  $r$ ) is commonly suitable for determining systematic relations (Miller, 2003), in the present research it was used to determine relations of variables with the assessment environment that the study participants were familiar with.

Percentages were rounded to the nearest 5% for the sake of readability.

#### *Result analysis and interpretation*

**Hypothesis 1:** at the initial stage of university studies students' awareness of traditional methods of learning a foreign language (English) prevails.

Frequencies analysis (Table 1) used to explore the data on the methods of learning English as a foreign language revealed that the majority of respondents are well aware of traditional methods of learning. For instance, the most common methods aimed at developing the reproductive language skill of speaking are discussions and role-plays on a given topic (pointed out by 88% of respondents in both cases), followed by the method of retelling a given text (78%). The most often practiced

methods fostering students' productive language skill of writing are writing compositions (97%) and essays (88%).

The results also revealed that the study participants are much less aware of performance-based methods of learning a foreign language that involve both individual and peer or team work, which makes the basis for the constructivist learning strategies of self-directed and cooperative learning. For example, the method of preparing and making *individual presentations* was reported by 68% of students; however, the method of *project preparation* based on team work was not familiar to 48% of all study participants, whereas the methods of *making group presentations* and *case studies* were not used by more than a half of all respondents (51% and 58% respectively).

**Hypothesis 2:** at the initial stage of university studies students' metacognitive skills are underdeveloped.

The research results revealed that the methods of learning English fostering metacognitive skills of in-depth analysis, reflection and critical thinking about one's own learning are known to only a small minority of the respondents: (1)

journals analysing complicated vocabulary items and their usage peculiarities were reported by 30%; (2) learning portfolios, that in research literature have been reported as effective tools of organizing one's own learning and reflecting on one's progress or on absence of progress or on ways of solving problems arising in the process of learning (Klenowski, 2003) were known to 29%; whereas (3) journals of one's progress building up the learner's skills of critical thinking about one's learning in general or learning a foreign language in particular were mentioned by only 9% of study participants.

**Hypothesis 3:** there exists a relation between students' satisfaction with their results and the assessment environment they are familiar with.

Relations between different variables and the assessment environment were explored by Correlation statistics that are shown in Table 2. The results of correlation analysis using Pearson coefficient  $r$  supported the hypothesis and revealed a weak, but statistically significant relation between students' satisfaction with their results and the fairness and comprehensiveness

**Table 1. Distribution frequencies on the methods of learning English**

<i>Methods of learning</i>	<i>Used in classes of English (%)</i>	<i>Not used in classes of English (%)</i>
1. discussions on a given topic	88	12
2. role plays on a given topic	88	12
3. retelling a given text	78	22
4. writing compositions	97	3
5. writing essays	88	12
6. writing summaries on the previously read texts	47	53
7. individual presentations	68	32
8. projects	52	<b>48</b>
9. group presentations	49	<b>51</b>
10. case studies	42	<b>58</b>
11. journals analysing complicated vocabulary items	30	<b>70</b>
12. learning portfolios	29	<b>71</b>
13. journals of one's progress	9	<b>91</b>

**Table 2. Correlational statistics for the assessment environment**

<i>Variables</i>	<i>Teacher praised for progress</i>	<i>Satisfaction with results</i>	<i>Fair &amp; comprehensive assessment</i>	<i>Clear assessment criteria</i>	<i>Progress discussed with teacher</i>	<i>Discussions on result improvement</i>	<i>Teacher motivated students to learn</i>
Teacher praised for progress	1,000						
Satisfaction with results	,223**	1,000					
Fair & compr. assessment	,368**	,373**	1,000				
Clear assessm. criteria	,265**	,259**	,344**	1,000			
Progress discussed with teacher	,386**	,224**	,322**	,357**	1,000		
Discussions on result improvement	,382**	,213**	,235**	,282**	,443**	1,000	
Teacher motivated students to learn	,405**	,270**	,366**	,348**	,367**	,411**	1,000

\*\* Correlation is significant at the 0.01 level (2-tailed)

of assessment ( $r = 0,373^{**}$ ,  $p = 0,000$ ), indicating that the more students are satisfied with their results, the fairer and the more comprehensive the assessment is. Besides, the correlation analysis revealed that there exist more statistically significant relations of other variables with the assessment environment, among which the most relevant are: (1) a moderate statistically significant relation between students' progress discussed with the teacher and their discussions on the result improvement ( $r = ,443^{**}$ ,  $p = 0,000$ ), indicating that the more teachers discuss their students' progress made during the learning process, the more they discuss the possibilities of how students can improve their learning results, which in its turn, surely contributes to students' satisfaction with their studies in general and with learning a foreign language in particular; (2) a moderate statistically

significant relation between praising students for their progress and the motivation to learn created by the teacher ( $r = ,405^{**}$ ,  $p = 0,000$ ), indicating that the more teachers praise their students for their progress made in the process of learning, the more students are motivated to learn; (3) a weak, but statistically significant relation between the fairness and comprehensiveness of assessment and the motivation to learn created by the teacher ( $r = ,366^{**}$ ,  $p = 0,000$ ), indicating that the fairer and more comprehensive assessment is, the more teachers motivate students to learn; (4) a moderate statistically significant relation between the discussions on how to improve students' results and the motivation to learn created by the teacher ( $r = ,411^{**}$ ,  $p = 0,000$ ), indicating that the more teachers discuss with their students how to improve their learning results, the more students are motivated to learn.

## Conclusions and recommendations

This research focused on exploring learning foreign languages at university level from the constructivist perspective. It investigated the study participants' awareness of the methods of learning English as a foreign language, the status quo of their metacognitive skills and the assessment environment they were familiar with at the initial stage of university studies.

The findings of the research indicate that: (1) the first year students are aware of both, traditional methods of learning a foreign language (English) that prevail, and constructivist methods of learning that are less common; (2) at the initial stage of university studies students' metacognitive skills of in-depth analysis, reflection and critical thinking are underdeveloped; (3) there exist multiple statistically significant relations of variables with the assessment environment that the study participants are familiar with, among which the most relevant are: (a) the relation between students' satisfaction with their results and the fairness and comprehensiveness of assessment; (b) the relation between students' progress discussed with their teacher and students-teacher discussions on the result improve-

ment; and (c) statistically significant relations of variables with the assessment environment that revealed the main factors motivating students to learn, i.e. the relation between praising students for their progress and the motivation to learn created by the teacher, the relation between the discussions how to improve students' results and the motivation to learn created by the teacher, and the relation of the fairness and comprehensiveness of assessment with the motivation to learn created by the teacher.

Drawing on the findings of the present research we recommend promoting constructivist methods of learning foreign languages at university level, which will foster cooperative learning based on participation in peer or teamwork on the one hand and contribute to students' self-directed learning providing them with metacognitive skills of in-depth analysis, reflection and critical thinking about one's own learning on the other hand.

Finally, we would like to stress the importance of the assessment environment with the central emphasis being on the fairness and comprehensiveness of assessment, the teacher-students relations, and the student motivation to learn created by the teacher.

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## UŽSIENIO KALBOS MOKYMASIS UNIVERSITETINĖSE STUDIJOSE KONSTRUKTYVISTINĖS PARADIGMOS KONTEKSTE

Nijolė Burkšaitienė

Santrauka

Siekimas užtikrinti geresnį mokymą/si visame pasaulyje tapo nauju iššūkiu postmodernistinės visuomenės švietimo sistemoms. Konstruktyvizmas – naujoji mokymo(si) teorija, besiremianti filosofiniais epistemologijos aspektais, bendrųjų sistemų teorijos argumentais, mikro-sociologine teorija (socialiniu konstruktyvizmu) – jau tapo mokymo/si paradigmos raidos veiksniumi įvairiuose švietimo sistemų lygmenyse, įskaitant ir universitetines studijas.

Remiantis atlikta mokslinės literatūros analize galima teigti, kad užsienio kalbų mokyme ir mokymese taip pat vyksta poslinkis nuo tradicinės link konstruktyvistinės mokymo/si paradigmos, kuriai būdinga: komunikatyvinio požiūrio įsivyravimas mokant/į užsienio kalbų, mokymo programų raida; inovacinių mokymo/si metodų taikymas; požiūrio į besimokantįjį ir dėstytoją raida; vertinimo pokyčiai.

Šio straipsnio tikslas – pateikti tyrimo, atlikto penkiuose Lietuvos universitetuose, rezultatus. Tyrimo imtis – 972 bakalauro dieninių studijų studentai, besimokantys 25 specialybių pirmuosiuose kursuose. Tyrimu siekta nustatyti užsienio kalbos (anglų k.) mokymo/si metodus, žinomus šių universitetų studentams; studentų metakognityvinių įgūdžių *status quo*; ryšius tarp studentams pažįstamos vertinimo aplinkos parametrų pradiniam universitetinių studijų etape

Tyrimo metodai – literatūros analizė, anketinė apklausa ir statistiniai duomenų apdorojimo metodai naudojant SPSS for Windows Version 10 programą (patikimumo analizės kriterijus Cronbacho alpha, aprašo-

moji statistika, pasiskirstymo dažnių kriterijus ir koreliacinė statistika (Pearsono koreliacijos koeficientas *r*).

Tyrimo metu nustatyta: 1) pirmųjų kursų studentams geriausiai žinomi tradiciniai užsienio kalbos (anglų k.) mokymo/si metodai; konstruktyvistiniai mokymo/si metodai mažiau paplitę; 2) universitetinių studijų pradiniam etape respondentų metakognityviniai giluminės analizės, kritinio mąstymo ir refleksijos įgūdžiai nėra pakankamai išvystyti; 3) egzistuoja nuo silpno iki vidutinio stiprumo statistiškai reikšmingi ryšiai tarp studentams pažįstamos vertinimo aplinkos parametrų, iš kurių pažymėtini: a) ryšys tarp studentų pasitenkinimo savo pasiekimais ir vertinimo aplinkos; b) ryšys tarp studentų pažangos, aptariamą su dėstytoju, ir diskusijų tarp studentų ir dėstytojo, kaip pagerinti mokymo/si rezultatus; c) ryšys tarp studentų pagyrimo už pasiektą pažangą ir dėstytojo sukurtos motyvacijos mokytis; tarp diskusijų, kaip pagerinti mokymosi rezultatus, ir dėstytojo sukurtos motyvacijos mokytis; tarp vertinimo teisingumo ir visapusiškumo ir dėstytojo sukurtos motyvacijos mokytis.

Siekiant efektyvesnio užsienio kalbų mokymo/si universitetinėse studijose, rekomenduojame naudoti konstruktyvistinius mokymo/si metodus, kurie skatina mokymą/si bendradarbiaujant ir besimokantiems suteikia metakognityvinių įgūdžių, leidžiančių analizuoti, kontroliuoti ir nukreipti savo mokymą/si reikiama linkme.

Akcentuojame vertinimo aplinkos, kurioje ypač svarbų vaidmenį atlieka vertinimo teisingumas ir visapusiškumas, santykiai tarp dėstytojo ir studentų bei dėstytojo sukurta motyvacija mokytis, svarbą.

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