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**METAPHORS FOR ON-LINE LEARNING**  
**DATORIZĒTĀS MĀCĪŠANĀS METAFORAS**  
BACHELOR THESIS

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## **DECLARATION OF ACADEMIC INTEGRITY**

I hereby declare that this study is my own and does not contain any unacknowledged material from any source.

Date:

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## ANOTĀCIJA

Bakalaura darbs “Datorizētās mācīšanās metaforas” apkopo konceptuālos metaforas, kas tiek lietotas, lai aprakstītu mācīšanos interneta vidē. Ir svarīgi zināt, kā cilvēki uztver mācīšanās procesu, jo tas nosaka kādā veidā viņi izvēlas mācīties.

Darba mērķis ir atrast visbiežāk lietotās datorizētās mācīšanās metaforas. Pētījumā tiek pielietota G. Stīna metode, kas analizē metaforas kontekstā (Steen, 1999). Rezultātā tika atrasti astoņi sākotnējās pieredzes lauki: ēka, augs, karš, logs, asimilācija, iegaumēšana, ceļojums un pārmaiņas.

Tika secināts, ka datorizētā mācīšanās tiek uztverta, kā sastāvoša no vairākām daļām un kā spējīga iepazīstināt, piemēram, ar jaunu kultūru; mācīšanās ir balstīta uz pieredzi.

Atslēgas vārdi: konceptuāla metafora, analīze kontekstā, sākotnējās pieredzes lauks, rezultējošās pieredzes lauks, līdzība, mācīšanās veids.

## ABSTRACT

The bachelor paper *Metaphors for On-line Learning* collects and analyses conceptual metaphors for on-line learning. It is important to see how people define the learning process, because it determines the way in which they learn.

The purpose of the research is to find the most frequently used metaphors for on-line learning. The method of Steen (1999) that analyses metaphors in context was used in the research. Eight source domains were found: a building, a plant, a war, a window, assimilation, memorization, a journey and a change.

It was concluded that on-line learning is perceived as consisting of several parts, as capable of introducing, for example, to a new culture; and as based on experience.

Key words: a conceptual metaphor, analysis in context, a source domain, a target domain, affinity, learning style.

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## INTRODUCTION

Almost every concept of life usually is expressed metaphorically. The conceptual metaphors of them include such mundane things of life as love and food; they also attempt to describe life itself. However, one has to be careful when using metaphors, for the other person might not understand him, because of different previous experience. Everyone is supposed to know what learning is, though. The Bachelor paper presents the study of conceptual metaphors used by the authors of educational texts/websites to refer to the process of learning online via the Internet. These metaphors reflect how the text authors view the learning process and which methodological approaches to language acquisition they apply. The use of stylistic devices regarding learning in the process of education can fasten and facilitate the understanding of the subject. In addition it does not make the audience bored, because the language of the teacher does not sound dull. The use of stylistic devices adds to the interestingness of the subject in the otherwise academic, thus, to some people's mind, sometimes not lively world; so the use of metaphors make it easier for pupils and students to learn. One of the teacher's tasks is to explain to his students what exactly learning it. Through the understanding of it, students can learn better. Nowadays it is already a specific field, which is being investigated, of how to learn to learn.

The author of the present research collected the most frequently used conceptual metaphors regarding the process of on-line language learning. It is important to define the source and the target domains of the conceptual metaphors to see and understand the affinity between them. The comparison is built on the bases of the similarity between the domains. The similarities between the source and the target domains are explained in the term paper. Learning is an abstract concept; one cannot see it, that is why it is important to see the conceptual metaphors through which one thrives to grasp the true meaning of it.

The most essential things of everyday life have a corresponding conceptual metaphor, for example that life and love are usually viewed in terms of journey. An on-line learning process does not yet have a corresponding conceptual metaphor that would explain what the process is. The metaphors that have already been distinguished by linguists include: *time is money*, *love is war*, *life is journey*, *ideas are food* etc. So the thesis searches for the metaphors for on-line learning and tries to define the source domain of them, in order to add to the classification of already known conceptual metaphors – *learning is...* .

The author aims to find the most frequently used metaphor for a learning process as it is a process that usually is described in an abstract way.

**The goal** of the term paper is to find the source domain of the conceptual metaphor, where the target domain is already known – a learning process.

**The enabling objectives** of the term paper are as follows:

1. To investigate the secondary sources on metaphors.
2. To compile a corpus of metaphors in context.
3. To explain the source domain to the target domain – learning.

**The research question is** “If the target domain of metaphors is *learning*, what are the source domains that are most frequently used in the texts about online learning on the Internet?”

**The hypothesis:** If the target domain of metaphors is *learning*, the source domains that are most frequently used in the texts about online learning on the Internet are *a journey, a change, a building, a war, a plant, assimilation, a window and memorization*.

**The method of the research** is the analysis of metaphors in discourse (Steen, 1999), which means that the research is conducted by analysing metaphors in context. The empirical part of the work - data collection, analysis and systematisation - was performed with the help of the computer programme Microsoft Office.

**Outline of chapters:** The first chapter overviews the secondary sources on metaphors for language learning and on-line learning metaphors.

The second chapter presents the description of the research method applied in the study. The author describes several methods suggested by prominent scholars and presents the selected for the present research method developed by Steen (1999).

The third chapter researches metaphoric representations of underlying concepts of learning in language learning styles.

The fourth chapter displays the research results and contains discussion on findings, as well as presents some practical implications of the research and suggests perspectives for future investigation.

# 1. OVERVIEW OF THEORETICAL APPROACHES TO THE STUDY OF METAPHOR

Chapter 1 is devoted to the overview of theoretical approaches to the study of metaphor. First the studies of conceptual metaphors conducted by prominent linguists will be presented. Then studies of metaphors of learning will be discussed. The next subchapter will examine the secondary sources on metaphors in language acquisition. In the last subchapter the author researches secondary sources on on-line learning.

Although scholars have studied some individual metaphors, especially, conceptual metaphors in depth, there has not been a systematic and exhaustive study that would investigate the meaning and use of eight conceptual metaphors for learning on-line: *learning is a change*, *learning is a journey*, *learning is a war*, *learning is memorization*, *learning is a building*, *learning is a plant*, *learning is a window* and *learning is assimilation*.

The main subject of the bachelor thesis is a metaphor; however, a metaphor does not stand alone in the science of linguistics and is to be studied in the branch of linguistics called stylistics. There are many stylistic devices and a metaphor is one of them. First of all, it is important to define what stylistics is. According to the definition given by the linguists Leech and Short, stylistics is as follows:

From the linguistic angle, the main question is, “Why does the author here choose to express himself in this particular way?” and “How is such-and-such an aesthetic effect achieved through language (Leech, Short, 1981).

In 5<sup>th</sup> - 4<sup>th</sup> centuries BC the Greek philosophers Plato and Aristotle studied questions relating to cognition, the exploration of knowledge, logical thinking, language and meaning (Aristotle, 343.B.C.). Aristotle was especially interested in rhetoric and stylistics. This means that people have been studying language and meaning since already Ancient times, which proves that language has always been a matter worth discussing and arguing about.

The aim of stylistics is to show the features of the text thus helping to interpret it. According to Knowles and Moon, both of the following are the reasons why people use metaphors and why they are important,

First, in relation to individual words: metaphor is a basic process in the formation of words and words meanings. Concepts and meanings are lexicalized, or expressed in words, through metaphor. Second, in relation to discourse: metaphor is important because of its functions: explaining, clarifying, describing, expressing, evaluating, entertaining (Knowles, Moon, 2006:4).

This means that metaphors help people to communicate. Figures of speech are used to speak about one thing in terms of something else. There are many figures of speech e.g. *alliteration*,

*allusion, hyperbole, oxymoron, epithet, simile, metaphor, metonymy, litote, onomatopoeia, parallelism, personification, repetition, understatement* and other; however, from all of the mentioned stylistic devices, the present paper deals only with metaphors, because people tend to use them a lot in their every day lives, although they do not realize that most of the familiar concepts are described metaphorically; thus the investigation of metaphors allow to see how people perceive things connected with their lives and to what they compare them.

According to Gilles Fauconnier (2003) the word *metaphor* itself means a transfer from one thing to another. This definition of a metaphor has been known since ancient Greek and Roman times, when rhetoric as a scholarly science developed and flourished, as the emperors and other statesmen used the language as a means of persuading and pleasing the public. This means that their language had to be effective. When speaking to people they used different stylistic devices including metaphors, for sometimes calling things in their real names could sound harsh.

The most prominent linguist, with regard to conceptual metaphor study, is Gilles Fauconnier. Fauconnier published “Rethinking Metaphor” in 2008, in which he looks at conceptual mappings (metaphoric mappings) of metaphors from various perspectives. According to Fauconnier ‘at the beginning, the studies about a metaphor mostly concentrated on cross-domain mappings and their most visible products’ (Fauconnier, 2008). Knowles and Moon state that ‘it is easy to think of correspondences and mappings in terms of similarities between elements in domains (2006:33). This means that analysing conceptual metaphors it is necessary to see the affinity between the two concepts to understand why exactly the metaphor has been used, for example, in the conceptual metaphor *life is a journey* the common thing between the concepts is that they both have a beginning and an end and they both involve dealing with adventures and difficulties; however, Knowles and Moon add that, ‘not all aspects of a source necessarily map onto the target; some mapping are much more extensive than others’ (ibid.). Accordingly, the affinity between two concepts should be based on at least one common characteristic.

Other linguists explain a metaphor simply as ‘a figure of speech in which an expression is used to refer to something that it does not literally denote, in order to suggest a similarity’ (Fellbaum, et al., 2006). Many words have derivations, which have a figurative meaning, for example, words as ‘grasp’, ‘get’ and ‘see’ have the derivative meaning of the word ‘understand’. However, these words do not create a stylistic effect, because the primary meaning of them is not felt anymore (ibid.). As it has been already mentioned above, a metaphor connects two things, which have something in common. Not everything that has something in common can immediately make a metaphor by making prominent the similarity.

The mere fact that both, human beings and animals, eat and drink does not cause the notion of affinity, neither do the fact that human beings and flowers need oxygen to exist or that human beings and computers have the ability to think. A metaphor is considered to be the most powerful way of creating images in one's mind. An image in one's mind is made by narrowing the meaning of something abstract to something very specific (ibid.) That is why the use of metaphors in the process of education can facilitate the understanding of the subject.

The linguists George Lakoff and Mark Johnson in the book *Metaphors We Live By* state that metaphors structure human perceptions and understanding. Their definition of a metaphor is as follows,

A metaphor is a fundamental mechanism of mind, one that allows us to use what we know about our physical and social experience to provide understanding of countless other subjects. Because such metaphors structure our most basic understandings of our experience, they are "metaphors we live by"—metaphors that can shape our perceptions and actions without our ever noticing them (Johnson, Lakoff, 1980).

If someone calls Emily a fox, it definitely is not meant literally, because everyone knows that Emily is a human being not animal, therefore it has been said about her figuratively. The linguist Andrew Ortony states that consequently the question 'what was meant with his or her saying that' arises, because there can be as many associations as there are people. The associations depend on one's previous experience, knowledge etc. (Ortony, 1993). He wants to emphasize that not all people would understand metaphors in the same way, because they have different experiences. Someone might have met with an aggressive fox in his or her childhood. It is most likely that he or she may think that calling Emily a fox was meant that she was aggressive. It can even be possible that someone has had an experience of meeting a friendly fox, the understanding of the metaphor that Emily is a fox might cause completely different emotions in him than, for example, those that were mentioned before. Searle formulates the problem as follows,

If you hear somebody say, "Sally is a block of ice", or "Sam is pig", you are likely to assume that the speaker does not mean what he says literally, but that he is speaking metaphorically. Furthermore, you are not likely to have very much trouble figuring out what he means (Searle, 1969).

In this case the literal meaning of the word "pig" is an animal; whereas, the metaphorical meaning is that the person is not very clean. According to Knowles and Moon, 'Metaphors, therefore, are instances of non-literal language that involve some kind of comparison or identification' (Knowles, Moon, 2006: 7). This means that between the two concepts that are

being compared there have to be some allusion which makes it possible to attribute the characteristics of one to the other.

It can be declared that speakers have to have the same or at least similar background to understand metaphors that cannot be recognized immediately like dead metaphors. Knowles and Moon state that dead metaphors are those which 'people do not recognize as metaphorical in ordinary usage' (ibid:6). If one does not see the meaning the metaphor he or she has heard, it might cause misunderstanding, which is the main problem, communication, in a form of a language, is meant to avoid.

According to Fauconnier and Turner, in the cognitive linguistic view, metaphor is defined as 'understanding one conceptual domain in terms of another conceptual domain' (Fauconnier, Turner, 2008). Examples of this include when we talk and think about life in terms of journeys, about arguments in terms of war, about love also in terms of journeys, about theories in terms of buildings, about ideas in terms of food, about social organizations in terms of plants, and many others, which will be presented with examples in the bachelor thesis. The linguists explain that a conceptual metaphor contains two domains, 'the conceptual domain from which the metaphorical expression is drawn is called – source domain. The domain that as a result is understood is called – target domain' (ibid.) Thus life in the conceptual metaphor *life is a journey* is the target domain, while journeys is the source domain. According to Fauconnier, 'the target domain is the domain that we try to understand through the use of the source domain' (Fauconnier, 2003). Metaphors are frequently classified according to various concepts. The linguist explains, 'Although, many people think that a metaphor is a matter of extraordinary rather than ordinary language, our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature' (ibid: 1997). This means that even people who are against using stylistic devices in their everyday live, because they prefer straight forward expression, actually themselves use metaphors; it is just that they do not recognize them as metaphors as everyone is accustomed to using them. According to Knowles and Moon, 'The source domain is used for the concept area from which the metaphor is drawn. Target domain is used for the concept area to which the metaphor is applied' (Knowles, Moon, 2006:33). Metaphors are frequently classified according to various concepts.

The bachelor thesis finds the metaphors that are used in the process of learning, in order to facilitate the understanding about the subject to which the metaphor is applied. The use of metaphors in one's speech or writing can also make it more lively and interesting, thus the audience is not tired of monotonous tone, which can make them feel bored. Sometimes a single metaphor can communicate much more than an extensive explanation, because it is

built on affinities. While the audience is trying to understand the metaphor, they are at the same time considering the real meaning of what they are told or what they are reading. Although the notion of metaphors has been studied and applied to learning process and language learning and other domains dedicated to learning, the sources on on-line language learning are rare.

### **1.1. Studies of Metaphor of *LEARNING***

Researchers have studied conceptual metaphors for learning. Although there have been many studies of metaphorical representation of the concept of *learning* in general, the studies of the concept of *online language learning* are very scarce, that is why it is important to research the meaning and the use of the conceptual metaphors of on-line learning.

The paper deals with the conceptual metaphors of learning. It is important to classify the conceptual metaphors of learning because they reveal how people perceive such abstract and invisible process as learning. Linguists have studied conceptual metaphors; however, metaphors of learning have been rarely researched, in addition, there have been no studied of conceptual metaphors for on-line learning. With the help of the metaphors of learning it is easier to explain what exactly the process is. Cameron and Low state that, 'A metaphor can easily be seen as bridge, etymologically 'carrying over' from one side to another. It links and comprises the known and the unknown, the tangible and the less tangible, the familiar and the new' (Cameron, Low, 1999: 149). When it is possible to see how people define learning, it is also possible to understand why they choose to study in one or another way. The linguists emphasize that, 'In fact, classroom activities which focus deliberately of the use of metaphors have shown metaphors to be central to aiding student understanding of the nature of subject disciplines' (ibid:154), a similar view is also expressed by Ricoeur who has given several reasons why metaphors are useful and one of them is that 'Third, metaphors may *express the meaning more concisely* than a prolix non-metaphorical equivalent. At the same time, metaphors capture multiple meanings in experience' (Ricoeur, 1978). The linguist Scheffler states that metaphors are used in everyday situations and that they are especially important in educational processes. He considers that, 'Metaphors are used in everyday life in different kinds of spheres, their role is especially important in education, 'Metaphors are held to have a general value in education to assist in reflecting and organising social thought and practice in schooling' (Scheffler, 1960: 62). Another linguist who agrees that metaphors are important in education is Sticht, he explains that linguists are interested in cognitive processes, because though being aware what exactly learning is it is possible to help students learn and all in all –

to improve the educational system (Sticht, 1991). Cameron and Low add one more reason for the importance of the metaphors in the learning process, 'One reason for the effectiveness of metaphor as a teaching device is that understanding a metaphor involves active mental participation to link target and source domains' (Cameron, Low, 1999: 154). As it can be seen, metaphors play an important role in the process of education; however, there is also a view that one uses metaphors when he or she is lazy to make much effort, in order to understand and define a subject and that they are 'primarily of aesthetic value' (Petrie, 1981). Metaphors can make the process of education more vivid.

People tend to use metaphors in their everyday life even not realizing that they are using a stylistic device. This leads to the conclusion that even a person that is strongly against using figurative language in his or her life, actually, use them in their daily speech situations. The use of metaphors is especially important in the process of education, because they help students to understand the subject, which is being taught by the teacher in the classroom, 'Nevertheless, it is periodically advocated that metaphors should be used in direct classroom instruction, to aid children's understanding of subject content through analogy between familiar experience and new concepts' (Gordon, 1966). It is almost impossible to find words to talk about some concepts of life not using stylistic devices, especially, conceptual metaphors.

Another scholar Greeno has described learning as getting to know a new territory, which means that a person has to make some discoveries, in order to make unknown places and concepts familiar (Greeno, 1991). Thus his understanding of learning can be compared to a journey. The linguist has also stated that learning is a process that involves a change, he has defined the concept of learning as 'Phase transition, which means that learning is like changing from one physical state to another' (ibid.). The change in one's behaviour cannot be seen at the beginning of a learning process; however, it is possible to notice it during further studies.

It can be concluded that it is important to research conceptual metaphors of on-line learning, in order to see how people perceive on-line learning – whether they perceive it similar to face-to-face learning or as something completely different. The field has not yet been thoroughly investigated, because up to now many linguists have researched metaphors for learning not for on-line learning.

## 1.2. Secondary Sources on Metaphor in Language Acquisition

Many scholars have investigated the metaphors of language acquisition; however, metaphors for the concept of online language learning have not been sufficiently researched.

McCarthy explains that people tend to learn languages with the help of the things they see and hear around, which means that they learn symbols that later they associate with the language (McCarthy, 2001). This ability is called 'language acquisition device' (Chomsky, 1965). McCarthy states that the fact that learning is 'invisible and virtually irrefutable' creates difficulties, because it does not explain anything (McCarthy, 2001).

The linguists Ellis and Schmidt state that language acquisition is based on making associative models in mind, which is called 'connectionism' (Ellis, 1994, Schmidt, 1997). These associations make up what are called metaphors, for example, if the language learner considers the process of studies as a building, he or she chooses to study from one stage or level to another; thus the metaphor would be that *learning is a building*.

According to McCarthy 'connectionism is interested in cognitive processes of mind' (McCarthy, 2001). The idea is that if there are many concepts to which mind creates associations – the person learns faster and more effectively. It is possible that if one perceives language learning in several ways, for example, as an empty container and as a journey, it is likely that his acquisition of the language will take less time, because his mind makes multiple associations. Although McCarthy has described 'the associative approaches to learning' (ibid.), in particular, second language learning, he has not researched on-line language learning. That is why his research does not show whether people perceive on-line language learning similar or different to face-to-face learning. The scholar concludes that learning can be considered as a result of constant repetition, because, as he states, 'repeated "firings" create stronger connections' (ibid.). With the term 'firing' he means the outer stimulations from the external processes that make the mind respond. Another associative approach to language learning is that it has some kind of an affinity with the process of transfer. According to McCarthy, when people start studying new languages, they try to build the new information on the bases of the previous knowledge of their native language; thus they 'reshape L2 [second language] incoming information' (ibid.). The researcher Shirai states that a huge database is needed to capture the moment when a learner switches from 'connectionist viewpoint' to 'rule-governed' language learning' (Shirai, 1992). This means that people tend to build L2 grammar on the bases of the knowledge of grammar rules that already exist in their minds. McCarthy declares language learning as something that is inevitably connected with mind. The metaphors that people might encounter in language learning process are those

of ‘empty vessel’, ‘black box’ and something that involves a ‘transitions stage’ (ibid.).

Learning is something that is very difficult to be defined, it is an abstract process. Metaphors show that learning is a concept that is ready to take in new information no matter whether consciously or unconsciously; however, it first has to process the information on the bases on existing knowledge, in order the new concepts would be understandable.

To sum up, it can be said that scholars have researched language learning metaphors and they have come up with interesting conclusions of how people perceive learning; however, they have not researched the field of on-line learning. The next subchapter introduces the research devoted to on-line learning and the conceptual metaphors that can be found in it.

### **1.3. Secondary Sources on On-line Learning**

Scholars have researched metaphors for on-line learning; however, those studies look at metaphors from pedagogical point of view, they have not investigated metaphors of on-line language learning from the perspective of cognitive linguistics, i.e. as conceptual metaphors.

As nowadays it is possible to study via the Internet, its environment is considered to be similar to a real classroom. According to the researcher Cronjé, ‘Most Internet-based education and training sites use the metaphor of a virtual classroom, and the methodology follows the model of a virtual lecture’ (Cronjé, 2001). This means that people consider on-line learning similar to face-to-face learning. Everything that is available on the Internet in connection with learning process has its counterpart in the real world, for example, an Internet page is a virtual book, a learning tutorial on the Internet is a virtual classroom and learning materials are downloadable files. His research proves that, ‘The physical attributes of an actual classroom, i.e. chalkboard, resource cupboard, teacher’s workstation, learners’ workstations, posters and portfolios can easily be metaphorically recreated in cyberspace’ (ibid.). These comparisons are metaphors for on-line learning. Cronjé calls on-line learning a ‘metaphorical classroom’ (ibid.). He considers it similar to an actual classroom.

The scholar in his research looks at the metaphors from the pedagogical point of view; however, the aim of the paper is to investigate metaphors from the perspective of cognitive linguistics.

## Chapter Summary

The author of the present paper has presented in this chapter that there have been attempts to research conceptual metaphors; however, linguists have researched the process of learning not explicitly on-line learning. The aim of the paper is to analyse the conceptual metaphors used in the Internet concentrating on the cognitive linguistics.

Chapter 1 shows that the linguist Cronjé has studied on-line metaphors for learning process, yet his research looks at metaphors for learning from the pedagogical point of view, he has not investigated them from the perspective of cognitive linguistics. The following chapter will be focused on methods how to analyse metaphors best.

## 2. METHODS OF RESEARCHING AND APPLYING METAPHOR

The author of the present paper will present methods of researching and applying metaphors in Chapter 2. First some methods that are not preferable for the present research will be presented. The last subchapter will be focused on the method developed by Steen in 1999; it analyses metaphors in context, therefore, it is the method that is applied in the paper.

There have been some methods of how to analyse metaphors. Linguists have tried to think about the way how to research and apply metaphor best. Among many research approaches to the study of metaphor, the method of analysis of metaphors in discourse (Steen, 1999) is outstanding, as it is theoretically well-grounded and provides the means for thorough conceptual analysis and well-developed procedure for investigation. The following subchapters introduce methods of metaphor analysis. The next subchapter explains why the method where metaphors are analysed in discourse is the one which is considered to be the most appropriate to be used in the paper.

### 2.1. *Operationalising Metaphor* method

Lynne Cameron has proposed a method for analysing metaphors called *Operationalising Metaphor*. She emphasizes that there are many aspects that have to be considered when analyzing a metaphor, for example, ‘different language forms, different degrees of familiarity, different levels of generality’ (Cameron, 1999). The idea of this method is that there is no one theory applicable to metaphor analysis. According to Cameron, differentiated theory is required to describe and explain different aspects of metaphor processing: different temporal points of processing (ibid.). The linguist has concluded that it is important to know exactly ‘whether operationalising “metaphor” is being done at the theory level or at the processing level’ (ibid.). Although the method also proposes that it has to be looked at metaphors together with ‘naturally occurring discourse, corpora or native-speaker introspection, it also insists that differences ‘between community norms, individuals’ (ibid.) must be taken into account, which is not implemented by the author of the thesis. This is a good method to analyse metaphors in depth; however, it requires ‘multiple investigative methods [...] and large corpora’ (ibid.). That is the reason why in the present paper the method - Metaphor and Discourse - is applied (Steen, 1999), not the method of Cameron. Cameron’s method of operationalising metaphor might be applied to the paper that would develop the currently

investigated theme even further. The next subchapter presents one more method of metaphor analysis.

## **2.2. Gibbs's Guidelines for Researching Metaphor**

Another linguist who researches metaphor and is interested in how to apply metaphor best is Gibbs (1999). He has developed several guidelines that everyone who wants to analyse metaphors should use. In the first guideline he suggests that different kinds of metaphor in language should be distinguished. The linguist insists that a metaphor can be much more than just saying that one thing is like another, because they share some common features. In order to research metaphors successfully, Gibbs gives advice pointing out to the necessary actions that must be taken, 'to distinguish metaphor from metonymy' (ibid.). He emphasizes that there are characteristics that make these two tropes different. Another guideline advises 'to distinguish between the processes and products' (ibid.). The linguist emphasizes that one must be careful not to mix up the ideas that come into mind during metaphor analysis process and the result of it itself (product). These two things might be completely different. It is also advisable 'to distinguish "metaphoric processing" from "processing metaphor"' (ibid.). Gibbs also suggests 'to distinguish how metaphor in language and thought interact' (ibid.). The linguist states that the metaphors people use unintentionally prove that it is in human nature to perceive things metaphorically.

Gibbs has presented useful metaphor analysis guideline; however, they do not look at metaphors in context, which is the aim of the thesis – to research metaphors within the discourse they can be found in. It is important to analyse metaphors in context, because they might extend over clauses or even sentences. Only when considered as whole (consisting of several phrases) the metaphor would reveal its true meaning. The fact that Steen's method *Metaphor and Discourse* looks at metaphors in context is the reason why it is applied in the paper.

## **2.3. Validating Metaphor**

One more method for researching metaphor was developed by Low (1996). Graham Low has proposed the method of Validating Metaphor, in order to analyse metaphors, to understand their true meaning. He advises to look at five complicated areas on the bases of which metaphors should be researched. He introduces some areas where validation can cause difficulties, for example, 'determining what to categorise as metaphor(ic) in naturalistic

studies, creating adequately representative metaphors in reaction studies, [...], generalising from metaphoric language to thought and action' (Low,1996). The linguist has proposed the ways of validating metaphor, because he considers that it is difficult to analyse metaphoric language. Although the process of validating metaphor is always connected with problems, he emphasizes that it is worth trying.

The present paper deals only with written discourse, not spoken discourse. That is why the method that is employed in the paper is Steen's *Metaphor and Discourse* that concentrates on analysing metaphors in context. The method that is described in this subchapter is a preferable method for analysing metaphors; however, Graham Low (1996) researches more the language of spoken not written discourse. The subject of the paper is written discourse.

#### **2.4. *Metaphor and Discourse* method**

The method *Metaphor and Discourse* is preferable as it analyses metaphors in context, which is advisable, because it gives an opportunity to see whether the metaphor consists only of one word or it extends over a clause. If a metaphor extends, it signifies that some additional meaning of it can be detected. This meaning might be different from the one that would be withdrawn from a metaphor without a context. The scholar has created several guidelines that help to analyse metaphors in context. Gerard Steen has an opinion that it is not enough to analyse metaphors simply saying that a concept is perceived in terms of another concept, because they have some similarities that cause the affinity between them (Steen, 1999). He proposes a linguistic checklist that would help to analyse metaphors. This is especially important, because the checklist gives the possibility to apply metaphors in 'corpus research' (ibid.).

This approach helps to understand better the connection between the two concepts (the source domain and the target domain) in context. It is very important to see the metaphor in context, because there are many metaphors that extend over the clause, thus they do not consist only of one word or a phrase. If the metaphor is not expressed in one clause – it is called 'implicit' metaphor; whereas if it is in the same clause – 'explicit' metaphor (ibid.). It can be dangerous to find a metaphor and consider it without context, as it would lead to incomplete or even incorrect conclusion, because the true meaning of the metaphor would only be seen when considered within the frame of the discourse where it appeared. He also suggests that it would be useful to differentiate among 'linguistic, conceptual and

communicative metaphor analysis' (ibid.) According to Steen, '[...] it is best to tackle conceptual metaphor analysis by means of constructing metaphorical propositions' (ibid.).

The linguist has developed a linguistic checklist for metaphor analysis. He presents the checklist as consisting of three parts: conceptual analysis, linguistic analysis and communicative analysis. Each of the parts responds to specific questions, for example, the part that is responsible for conceptual metaphor analysis answers to the question, 'What is the metaphorical proposition: literal referent(s) and non-literal predicate' (ibid.)?

The present paper concentrates only on this first part – conceptual analysis of metaphors. The second part which deals with the linguistic analysis explains 'what is the metaphorical expression: non-literal Focus and literal Frame' whereas the third part Communicative Analysis informs about 'the metaphorical utterance: literal topic and non-literal comment' (ibid.). As the paper deals with the conceptual analysis of metaphors, the next paragraph looks at Steen's proposed metaphor analysis checklist for conceptual metaphors in depth.

Steen has divided the procedure of conceptual analysis into four parts. The first part deals with non-literal predicates. Its aim is to explain whether the non-literal predicate is simple or complex, whether it extends over clauses or is expressed in one clause and whether it has numerous propositions (ibid.). The second part examines literal referents. It is necessary to respond to the questions whether they are expressed or implicit and whether they are in the same clause as the non-literal predicate or somewhere else (ibid.). In the third part Steen recommends to turn one's attention to metaphorical propositions. He states that one has to answer which types the proposition is: abstraction or concretion, animation or personification (ibid.). In the last part of the conceptual metaphor analysis it is necessary to examine metaphorical comparison. This part tries to see 'what the underlying comparison statement of the metaphor is and what the analogy of the metaphor is' (ibid.).

The checklist which has been developed by Steen, in order to analyse metaphors in discourse can be viewed as an 'instrument for the systematic investigation of resemblances and differences between metaphors' (ibid.). This means that following this checklist and the points of it, it is possible to analyse metaphors in discourse more effectively. This is the best method to analyse metaphors in context, because it looks not only at the metaphor as one word or phrase, but it also examines whether the metaphor extends over clauses, thus possibly acquiring additional or completely different meaning.

As the full meaning of metaphor can only be seen in context, this is the best method to analyse metaphors, that is why it has also been applied in the present paper.

## **Chapter Summary**

In this chapter the author has summarised the methods that are used for researching and applying metaphors, and the views of linguists how best to analyse metaphors. It has been demonstrated that there are some methods that offer guidelines for analysing metaphors; however, most of them have different drawbacks limiting their effectiveness. Therefore, the author has chosen to use the method that was developed by Steen in 1999, because he looks at metaphors in discourse and it is important to analyse metaphors in context, as metaphors may extend over the limits of a word or a phrase.

The following chapter will present the findings of the research – metaphoric representations of underlying concepts of learning in language learning styles.

### 3. FINDINGS: METAPHORIC REPRESENTATIONS OF UNDERLYING CONCEPTS OF LEARNING

Chapter 3 is devoted to the findings obtained in the research presented in the paper. The author discusses the conceptual metaphors of learning and language learning styles that correspond to them.

As it has already been discussed in the previous chapter, the conceptual metaphors consist of two domains: the source domain and the target domain. It is possible to compare the two domains because of the affinity between them. The research has found the conceptual metaphors of learning – *learning is...* . Metaphors show the way in which people perceive specific or abstract things, as well as different processes. The conceptual metaphors of learning are very important in the process of education, as they show how a person perceives learning. It helps students to be more productive in their learning process, when a subject is explained with the help of metaphors. The perception of the concept of learning determines the way in which the person chooses to study; moreover, it is the way his or her studies are most successful. The following subchapter presents the views of Gardner (1983) in some of the most popular ways of learning. It will also be considered which of these ways of learning are most appropriate to be implemented via the Internet.

There are many different ways of learning; however, each person usually develops his or her own way of learning in which he or she can succeed, for example, while some people learn best when they are presented with pictures or other visual material, others for the same purpose need to hear the information or touch the material about which they are being told.

The ways of learning are connected with *multiple intelligences* (Gardner, 1983). According to Armstrong, ‘The theory of multiple intelligences was developed in 1983 by Dr. Howard Gardner, professor of education at Harvard University’ (Armstrong, 1998-2000). Intelligence is defined as, ‘the capacity to solve problems or to fashion products that are valued in one or more cultural setting’ (Gardner, Hatch, 1989). At the beginning Gardner presented seven intelligences: linguistic intelligence, logical-mathematical intelligence, musical intelligence, bodily-kinaesthetic intelligence, spatial intelligence, interpersonal intelligence and intrapersonal intelligence (Smith, 2002, 2008). This means that each person has one of these multiple intelligences, which determine the way in which people learn.. Pupils and students depend on the teacher. A teacher should keep in mind all of these intelligences thus satisfying the needs of every student by presenting them with different types of exercises and materials. It is important to understand that people have different

multiple intelligences and learn in different ways, because, according to Chapman, it would help the people themselves in their studies,

This [the understanding that there are different multiple intelligences] provides absolutely pivotal and inescapable indication as to people's preferred learning styles, as well as their behavioural and working styles, and their natural strengths. The types of intelligence that a person possesses (Gardner suggests most of us are strong in three types) indicates not only a person's capabilities, but also the manner or method in which they prefer to learn and develop their strengths - and also to develop their weaknesses (Chapman, 2003-2009).

Chapman has also given an example of how multiple intelligences work 'A person who is strong musically and weak numerically will be more likely to develop numerical and logical skills through music, and not by being bombarded by numbers alone' (ibid.). This works also the other way round, for example, if someone is weak musically, but strong with numbers, the person will have considerable difficulties with understanding the concepts that someone tries to explain with the help of music. He or she has to see and to work with the numbers to calculate out the intended message. However, it can be added that 'usually people possess more than one intelligence' (ibid.). People can have several intelligences; however, one of them is the one which is developed the most. The intelligences can overlap, yet they serve to fulfil the same aim - to help the person to learn. The person has to want to make use of his or her intelligence, because, as Chapman states, 'Intelligences are separate to the good or bad purposes to which people apply whatever intelligences they possess and use. Intelligences are not in themselves good or bad' (ibid.). The paper briefly examines all seven types of the intelligences that were first proposed by Gardner, who later added more types.

One of the seven multiple intelligences is the linguistic intelligence. It is possible to describe the person who possesses this intelligence as 'words smart' (Armstrong, 1998-2000). Smith has described Gardner's idea as follows, 'linguistic intelligence involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals' (Smith, 2002-2008). This means that people who have the intelligence are good at languages and the expression. They can express themselves well orally as well as on the paper. The person has to hear the information, in order to remember and reproduce it later.

Another intelligence is called logical-mathematical intelligence. According to Gardner, the features that describe the intelligence are as follows: logical thinking, scientific reasoning and deduction, analysis of problems, performing of mathematical calculations (Gardner, 1983); Armstrong calls this kind of person 'number/reasoning smart' (Armstrong, 1998-2000). The person is good at operating with numbers and information involving his or her logical thinking, in order to understand something.

The musical intelligence means that the person can express himself or herself well musically. Chapman emphasizes Gardner's idea that this intelligence includes the ability 'to see the connection between sound and feeling' (Chapman, 2003-2009), which means that 'musical intelligence involves skill in the performance, composition, and appreciation of musical patterns' (Smith, 2002-2008). A person, who has this intelligence, usually finds it difficult to perform actions that require logical thinking. Creativity is their strong point; that is why they are called 'music smart' (Armstrong, 1998-2000). They try to solve problems connected with the learning process creatively.

Gardner has called the fourth intelligence bodily-kinesthetic intelligence. The people who possess it are described as 'body smart' (Armstrong, 1998-2000). As it can be guessed from the name of the intelligence, this involves people using their bodies and parts of their bodies, in order to learn, it 'entails the potential of using one's whole body or parts of the body to solve problems. It is the ability to use mental abilities to coordinate bodily movements' (Smith, 2002-2008). This intelligence also involves 'eye and body coordination' (Chapman, 2003-2009). People who have this intelligence are good at physical activities.

The next intelligence is called spatial-visual; it is about 'visual and spatial perception' (ibid.). Smith has explained Gardner's idea, 'Spatial intelligence involves the potential to recognize and use the patterns of wide space and more confined areas' (Smith, 2002-2008). People whose strongest intelligence is this one may be artists, because they 'understand relationship between images and meanings, and between space and effect' (Chapman, 2003-2009). They can represent their ideas, understandings and perceptions visually – with the help of different images, which is the reason why they are called 'picture smart' (Armstrong, 1998-2000). It is easy for them to draw the received information in a form they perceive it, for example, if the information contains many aspects, they might represent it as a tree with multiple branches.

Another intelligence is called interpersonal. Those who have this intelligence are called 'people smart' (Armstrong, 1998-2000). This means that a person who possesses this intelligence 'is concerned with the capacity to understand the intentions, motivations and desires of other people. It [this intelligence] allows people to work effectively with others' (Smith, 2002-2008). People of this intelligence are good in communication with other people. The intelligence which is called intrapersonal is the opposite of the previously mentioned interpersonal intelligence. The intrapersonal intelligence 'entails the capacity to understand oneself, to appreciate one's feelings, fears and motivations. In Howard Gardner's view 'it involves having an effective working model of ourselves, and to be able to use such information to regulate our lives' (Smith, 2002-2008). The people who possess this

intelligence are more introverted than those who have the intrapersonal intelligence, for that reason they are described as 'self smart' (Armstrong, 1998-2000). They are more orientated to their inner world, their feelings, thoughts and perceptions.

The question which of the intelligences is the best remains unanswered, because they all are good in their own way; however, Thomas Armstrong has noted that, 'Dr. Gardner says that our schools and culture focus most of their attention on linguistic and logical-mathematical intelligence' (Armstrong, 1998-2000). This means that those people that have these intelligences are estimated in society higher than those who have, for example, the musical intelligence. Gardner considers this to be wrong, which is one of the reasons why he has come up with the theory of multiple intelligences – to show that people are different, thus they learn and perceive things in different ways. In other words, according to Armstrong, the aim of Gardner's introducing the concept was 'to account for a broader range of human potential in children and adults' (ibid.). The way people perceive learning is strongly connected with the way they choose to learn, that is why the following chapters apply the previously found and classified conceptual metaphors to the process of on-line learning. In the next paragraphs the author discusses which learning methods are employed in the conceptual metaphors of on-line learning.

As it has been concluded by the author of the paper, one of the conceptual metaphors that is used to describe learning is *learning is a change*. The source domain of the conceptual metaphor is a change, a transformation and the corresponding target domain is learning. With the help of the source domain it is implied that learning involves some kind of a change in the learner's behaviour. This paragraph applies the conceptual metaphor to the process of learning. It has been noted that the way in which people perceive learning determined the style in which they study and what is more important – it is the style in which they are able to learn best. If a person considers learning as a change, he or she expects to notice some change in him or her during the process of learning. People do not change physically, the change in them must be perceived figuratively. The conceptual metaphor that *learning is a change* can be seen in this example,

*Perceptual learning is the specific and relatively permanent modification of perception and behaviour following sensory experience.*

(Fahle, Poggio, 2008)

This means that the person in his brain changes the information slightly, in order it would be understandable enough for him or her.

It is the same with the example that learning is 'transformation', as in the following example,

*Key to expertise is the mastery of concepts that allow for deep understanding of that information, transforming it from a set of facts into usable knowledge.*  
(Bransford, Donovan, Pellegrino, 1999)

The information must be transformed, in other words, changed in a way it is easy for the learner to comprehend it and to store in memory, in order to use and to apply the knowledge later. The changes are necessary because people tend to learn new concepts on the bases of their previous experiences, for example, if someone encounters a problem for the first time, he or she is confused and does not know what to do. The next time, when he or she already has the experience, even if the given situation differs in some aspects, the person is able to modify it in order to make it similar to the existing experience. The result is that at the end of this process of information transformation, the learner is able to deal with the difficulties without problems. The example that learning is ‘translation’ also suggests that some actions have to take place to make new concepts familiar. Consider the following example,

*You have to translate the images or descriptions into actual behaviour.*  
(Boeree, 1998).

There is a small difference between the metaphors that learning is ‘modification’, ‘transformation’ and learning is ‘translation’ because the last does not imply any change that has to be introduced, rather than that it simply suggests that some interpretation is necessary. In this case when unfamiliar information is encountered, the learner does not make any modifications in his brain to apply the knowledge to the previous experiences; he or she simply considers whether this new concept has been already seen somewhere or not. If the concept is recognized, the learner has digested the new information, he or she has ‘translated’ in a ‘language’ that is understandable only for him or her. The common aspect between the examples remains the same: they all are based on the experience of a learner. When people learn something new or understand something that they have not grasped before, they are changing. The change in them means that from that point on they can speak about the newly learnt concept, they can operate with it and apply it.

In connection with the on-line learning the change (the fact that they have learnt something) can be noticed by people themselves, as they are sitting at the computer alone.

In connection with the learning styles, it should be noted that on-line learning in many cases is connected with the intra-personal intelligence, because it lacks live face-to-face communication, activities and real life communicative situations.

With regard to the conceptual metaphor *learning is a journey*, it can be said that the conceptual metaphor implies that learning is similar to a travelling with ‘a guide’ or ‘an instructor’ and as ‘leading’ somewhere, see the following examples,

*A basic understanding of the material in question provides the learner with a guiding compass for further travel*

(Mergel, 1998)

*Learning leads not only to new ways of thinking, behaving and viewing the world, but also affects others who are connected to the learner's environment.*

(Levine, 1999)

*As indicated, personality also affects how students learn. Dependent students require a lot of guidance, direction, and external stimulation. These students tend to focus on the instructor.*

(Online 5)

Learning is compared to a virtual journey, as they both have a starting point, the middle period which is full of success and failures; however, at the same time there is also the finishing point. For a person the starting point can be considered his or her birth and the end – his or her death. People learn throughout their lives, in other words, life can be defined as a long journey. The considerable amount of affinities is the reason why the metaphor is possible to be constructed. It has already been mentioned that concepts that are being compared have to have at least one similar aspect that is able to draw the affinity between them. The next paragraph discusses the similarities of the process of learning as having a virtual ‘path’ and ‘a road’; the following are the corresponding examples of the metaphors,

*Our mission at A Road 2 Learning is to offer customized, innovative educational services for students of all skill levels and ages*

(Online 1)

*Only the LeapFrog Learning Path lets you: see the skills your child is exploring with LeapFrog, see time spent playing, challenge level and more, find, learning ideas to match your child's passions, discover your child's favourite activities*

(Online 2)

A way is an inevitable part of a journey: if someone perceives learning as a journey he or she expects the beginning of acquiring knowledge, the end and the middle part of it. Roads always have a beginning, middle and an end as well. The middle part of the learning process is the broadest. It includes difficulties as well as moments full of joy that do not let lose the will to study further and the urge to get to know more, as is demonstrated by the following examples,

*Students are free to explore many dimensions of one or more languages and cultures through a wide variety of authentic materials- from literature and history to films and television and programming.*

(Online 3)

*A novice learner is unable to establish an "anchor" in a hypermedia environment they may wander aimlessly through hypermedia becoming completely disoriented.*

(Mergel, 1998)

Someone who thinks of learning as a kind of journey or trip, at first wants to cover the beginning of a theme thoroughly before moving further. The beginning of the learning process is a virtual 'embarking upon' to start 'a journey', consider the following example,

*However, Suzanne Graham recognizes the need to understand more fully the challenges facing foreign language students, especially as they embark upon on a more advance course of study.*

(Graham, 1997)

The end of a learning process can be metaphorically considered as the end of a journey. Learning has also been compared to 'a quest' or 'a hunt' for 'treasure' as is exemplified by the following quotations,

*Until quite recently, understanding the mind – and the thinking and learning that the mind makes possible – has remained an elusive quest, in part because of a lack of powerful research tools.*

(Bransford, Brown, Cocking, Donovan, Pellegrino, 2000)

*A treasure hunt can cover key information in the syllabus, technology requirements, subject matter and can even help enrich the course content if you have the students collect external resources.*

(Online 4)

This means that learning is perceived in terms of constant searching for something. In learning, people search for knowledge and information.

To conclude, the conceptual metaphor *learning is a journey* can be applied not only to on-line language learning, but also to face-to-face learning. People who perceive learning in this way may possess the interpersonal or even the visual-spatial and the kinaesthetic intelligence in real life situations, because they like adventures, communication, moving (everything connected with journeys).

The following paragraphs analyse the conceptual metaphor *learning is a war*. In this conceptual metaphor learning is understood as virtual war. The conceptual metaphor *learning is a war* means that there is 'a struggle' and 'a fight', 'a combat' or the process has virtual 'threats' and 'strategies.' Consider the following examples,

*Surface learning tends to be experienced as an uphill struggle, characterised by fighting against boredom and depressive feelings.*

(Atherton, 2009)

*To assess learning we use tests with which students struggle in one-on-one combat, where knowledge must be demonstrated out of context, and where collaborating is considered cheating.*

(Wenger, 1998)

*An MIT Professor's pathbreaking book on building "learning organizations" - corporations that overcome inherent obstacles to learning and develop dynamic ways to pinpoint the threats that face them and to recognize new opportunities.*

(Senge, 1994)

*Learning as a preparation for life has been displaced by learning as an essential strategy for successful negotiation of the life course, as the conditions in which we live and work are subject to ever more rapid change.*

(Clarke, Hanson, Harrison, Reeve, 2002)

Someone who perceives learning in this way thinks of learning in terms of a combat that he or she has to win. In on-line learning it is impossible to get direct help from a tutor. The aim of the teacher is to provide with the correct 'strategy' (corresponds to learning strategy) with the help of which it would be possible to win in the 'combat' (representing the learning process).

Similarly as in a war, if students do not get orders of what to do next, they are stuck and cannot move forward. On-line learning is done independently, that is why it is almost impossible to receive immediate feedback. This might cause difficulties for those people to study on-line, because they need to be told what to study further and how to apply the newly learnt concepts.

The thing that connects the two concepts is that they both have a specific aim – to win. A victory in a war is the aim of soldiers similarly the aim of learning is to be familiar with something at a level that it is possible to apply the skills or the information. When considering the applying of this metaphor, it can be said that there is a beginning; however, it can be interrupted easily if orders are not given. If orders are given, students move further and are completely in the process of learning unfamiliar things, they acquire them quite easily because they are eager to win this virtual 'struggle'. There are two possibilities of the end though. If learning is not successful, one might drop it without continuing; whereas if learning has been productive, a positive result is achieved.

It can be concluded that one who considers learning similar to a war lacks immediate feedback and advice studying via the Internet. This also determines the intelligence, which is intrapersonal, although in real life situations it could also be the visual-spatial (when making war strategy) and the kinaesthetic intelligence (movements).

Another conceptual metaphor for on-line Language Learning is *learning is assimilation*. There is one important reason why on-line learning could be a challenge for people who perceive it as *learning is assimilation*. They consider assimilation similar to learning process and they try to build new knowledge on the base of previous experiences,

*One needs knowledge to learn: it is not possible to assimilate new knowledge without having some structure developed from previous knowledge to build on.*  
(Hein, 1996)

On-line learning would unlikely turn out to be effective in, for example, learning to ride a bicycle, because no practice can be implemented via the Internet. Although, a person can have a slight background of riding a bike, he or she will not learn to do it completely without practice (absorbing the new information), as in the example:

*Learning is often accomplished in a passive manner by having instructors or content transmitted to the learners for them to absorb.*  
(Clark, 2004)

Learning is also called ‘correlation’,

*Progressively higher levels of learning are understanding what has been taught, achieving the skill for application of what has been learned, and correlation of what has been learned with other things previously learned or subsequently encountered.*  
(Online 2)

The metaphor also corresponds to the idea that learning cannot be implemented without the bases on which something (knowledge or information) already exists, for example, it is impossible to accommodate something without the place where to do it, to perform assimilation something that has to be assimilated is needed as well as something in which it will be assimilated; the process of correlation is also possible to be done only if there are two things to ‘correlate’.

With regard to online-language learning, this way of learning also is more appropriate for the intrapersonal intelligence, because people work with themselves to find the familiar concepts that are stored in their brains. In comparison with the previous conceptual metaphors, this intelligence remains the same no matter whether it is on-line or face-to-face learning.

The next conceptual metaphor to be discussed is *learning is a building*. Someone who thinks about the learning process as a virtual building considers that it has, for example, ‘stages’, ‘steps’, ‘levels’ and ‘degrees’, as is illustrated by the following examples,

*Research predicts that deep and lasting learning occurs as a learner proceeds through a series of stages.*  
(Levine, 1999)

*You may find that you move back and forward between the steps. In addition, you may not need to do all the steps for every learning objective.*

(Adelson, 2004)

*The lowest level is the ability to repeat something which one has been taught, without understanding or being able to apply what has been learned. This is referred to as rote learning.*

(Online 2)

*All learning is by experience, but learning takes place in different forms and in varying degrees of richness and depth.*

(Online 5)

In addition learning is considered to be something that has to be ‘constructed’, ‘formed’, ‘shaped’, ‘created’ and ‘organized’ as it is demonstrated in the examples,

*Realistic constructivism - cognition is the process by which learners eventually construct mental structures that correspond to or match external structures located in the environment.*

(Mergel, 1998)

*His theory, Connectionism, stated that learning was the formation of a connection between stimulus and response.*

(Mergel, 1998)

*Finding the Learning Gaps is one of three phases making up The Creative Brief. The purpose of the phase is to help you clearly identify the learning goals you have for students and thus better shape the activity you're in the midst of creating.*

(March, 2008)

*The conceptual framework allows experts to organize information into meaningful patterns and store it hierarchically in memory to facilitate retrieval for problem solving.*

(Bransford, 1999)

Learning is metaphorically considered as something that at the beginning has to be supported by ‘constructions.’ See the following example,

*In order for learning to progress, scaffolds should be gradually removed as instruction continues, so that students will eventually be able to demonstrate comprehension independently.*

(Lewis, 2010)

Learning has a virtual ‘bottom’ that would metaphorically correspond to the ground floor of a building as is illustrated by the following example,

*In contrast, the serialist student focuses more narrowly and needs well-defined, sequential steps where the overall picture is developed slowly, thoroughly, and logically. This is a bottom-up strategy.*

(Online 5)

People who perceive learning this way usually prefer learning slowly and gradually. First of all, he or she tries to understand all the basic rules of the thing or concept he or she wants to cover. This may be considered as the virtual foundation of a building, as the first step, the first level of gaining new knowledge. When the person has acquired all these skills at a decent level he or she thinks that this could be the moment to move forward. So they take the next 'steps', which metaphorically stand for the fact that they move forward in their learning process, for example, start studying a new theme. Constructivists' approach to learning can also be metaphorically compared to a building, as they think that knowledge is constructed in collaborative learning. The same metaphor may be used by those who consider teaching grammar the most important (Grammar-Translation Method), as there are structures in a building and grammatical 'structures.'

In regard to on-line learning, it is possible to say that the first steps of learning, which are compared to the first stages in a building process, can be taken via the Internet. The next steps which require putting the newly learn concepts to use, applying the gained knowledge already are not easily done reading from a computer screen. They require practice whether it is communication with other people or driving a car. To conclude, on-line learning is appropriate for people who perceive the process as a building only at the beginning of acquiring new things, because of the lack of possibilities to practise. To cover a theme thoroughly practice is inevitable at the further steps of learning. This leads to a conclusion that at the beginning the learner makes use of the intrapersonal, the linguistic or the mathematical intelligence; whereas later he or she changes it to an intelligence, which involves more communication and movement, for example, the interpersonal or the kinaesthetic intelligence.

Another conceptual metaphor for on-line learning is *learning is memorization*. Persons who perceive learning as memorization tend to repeat new concepts as many times as it is necessary for them to finally remember them without difficulties. Professors, who consider that the best way is learning dialogues by heart, think about learning as memorization. They understand learning as 'storing', 'capturing', 'imitating' and 'retaining' images and information that have to be 'retrieved' later, see the following examples,

*Mastering new dance steps, learning foreign languages, or remembering acquaintances names require our brains to encode and store new information until we need it.*

(Online 6)

*From the day we are born—and even before—our brains are ready to capture our experiences and encode them into a web of nerve connections.*

(Online 6)

*Observational learning is also known as imitation or modelling.*

(Delores, 1998)

*The mind can rarely retain, evaluate, and apply new concepts or practices after a single exposure.*

(Online 2)

*The first says that the student's brain has internal structures which select and process incoming material, store and retrieve it, use it to produce behaviour, and receive and process feedback on the results.*

(Online 3)

When they have memorized the information they are able to apply the new knowledge. For language learners of this kind drills are an appropriate form of learning, for repeating some elements of a new theme helps the learners to remember them later.

These people usually remember best when they read through a passage of text several times or even if they learn it by heart.

On-line learning could cause difficulties for people who think about learning process in terms of memorization, because it does not provide communication with other people, in other words, there are not many experiences and images 'to capture' and 'to store'. In different speech situations that are imitated over and over again in different variations in a classroom, people remember the words and the phrases better. That is why learning is metaphorically called 'imitation'. Classroom communication helps to experience the situation as if in real life. Learning on-line can be even of greater use for memorizing new words and phrases than the language classroom, as instead of hearing a phrase or a dialogue once or twice in the classroom; a learner can listen to it many times by clicking on the appropriate button to hear the correct pronunciation on the Internet. In regard to face-to-face learning not only language acquisition, but also memorization are the main processes that must take place to acquire something.

Learning process is based on experience. If one hears a difficult word pronounced multiple times and tries to imitate the correct version, it is likely that he or she will memorize the correct way of pronouncing or using the word. This leads to a conclusion that on-line learning is appropriate for language learners who consider learning as memorization, because memorization is much based on imitation and experience. On-line learning gives the opportunity to listen to the word infinite number of times by clicking the button. In addition, one can do electronic grammar and vocabulary exercises repeatedly, many times the same exercise, and receive immediate automatic feedback each time.

The next conceptual metaphor for on-line learning is *learning is a plant*. The conceptual metaphor *learning is a plant* is in a way similar to the metaphor *learning is a building* and *learning is a journey*, because the main characteristic of them is that they consist of several

constituent parts. All the parts are necessary and if one of them is missing the concept is not complete and cannot function successfully. There are some differences, though. A person who perceives learning as a plant, start with learning the basic things thoroughly. This can be compared to a virtual trunk of a plant. The parts of learning metaphorically correspond to the multiple aspects that are connected with learning. See the following example,

*To ensure that this does occur, it is essential to keep each student constantly receptive to new experiences and to help the student realize the way each piece relates to all other pieces of the total pattern of the task to be learned.*

(Online 2)

Learning does not include only reading and writing, an enormous part of it is constructed through virtual 'picking up' the knowledge, which is called acquisition, as the example below illustrates,

*Walking, eating, driving a car, riding a bike, and brushing teeth are among the more routine movement activities of everyday life. Most of us picked these up by trial or error.*

(Schmidt, Wrisberg, 2000)

There is affinity between the concepts 'learning' and 'plant', as they both deal with natural and inevitable processes, as it is demonstrated in the following examples,

*What if we assumed that learning is as much a part of our human nature as eating or sleeping, that it is both life-sustaining and inevitable, and that – given a chance – we are quite good at it?*

(Wenger, 1998)

*First, it implies that learning is a natural condition of being human.*

(Levine, 1999)

When speaking about learning – people learn from their experiences, from what they see, hear and touch more than from books. After completing one theme, learners cover the next branch, then another one – until finally they have come till the virtual 'fruit'. See the following example,

*Secondary reflection helps to bring these beginnings to fruition and to clear the way for further beginnings.*

(Cell, 1984)

The fruit of a plant can be metaphorically considered as the moment when a language learner has acquired language at a level he or she is able to use in communication with other people. This leads us also to acknowledging the fact that learning process can be virtually 'fruitless', as illustrated by the following,

*Moral education has been neglected, at least in part because it carries with it the twin pitfalls of indoctrination on the one side, and a fruitless bull session on the other.*

(Cell, 1984)

The ‘fruits’ of language learning are the results of learning, the existence of them show that the learning has been successful and the person is able to apply his knowledge in real life situations. The very beginning of learning process, even the person’s slightest interest about something is metaphorically called as the ‘seed’ of learning, because it has been the point from which the learner has developed his or her will to acquire something,

*It may also happen that in our primary thinking we sow the seeds of greater clarity, of enrichment, or of alternatives in our ways of seeing and understanding*  
(Cell, 1984)

Learning is considered as a process whose development can be fastened or ‘enriched’, see the following example,

*Such enrichment of the academic process is one justification for making experiential learning part of an academic program.*  
(Cell, 1984)

Correspondingly, the seed of a plant is also the beginning of the growth of a plant. It can be concluded that there are multiple things that create the affinity between the concepts ‘learning’ and ‘plant’.

What regards on-line learning, the learners cover some steps of language learning via the Internet; however, as it has been said, the process consists of various parts. It is not possible to acquire all of them only with the help of a computer, because to learn a language it is important to communicate with other people.

The last conceptual metaphor regarding on-line learning is *learning is a window*. Language is considered as a possibility to virtually enter a new territory in the conceptual metaphor *learning is a window*. While ‘the new territory’ may have a literal meaning, figuratively this means the knowledge that the learner is going to gain during the process of studying. Learning is considered as the way to a new world that is full of things that the learner is able to understand, although, before the learning process he or she did not comprehend them. People who think about learning this way – consider learning as ‘door’ to new information.

Perception of learning as a virtual ‘window’ and ‘door’ is illustrated by the following examples:

*Many of you may have heard about “learning windows”--they seem to be the new hype in children's development.*

(Markezich, 2009)

*The purpose of the program was to have youth, university, and business stakeholders work together to create the Learning Door, a door that would meet the needs of older people and people with disabilities.*

(Eronen, Randolph, 2006)

The virtual learning process that has a ‘door’ also can have a ‘key’, which enables to pass through the ‘door’, see the following example,

*Learning is now seen as a key feature of participation in social and economic life.*

(Clarke, 2002)

In connection with on-line learning, this conceptual metaphor can be encountered quite often, because there are many people who practise on-line learning. The process of learning, which takes place with the help of computer, creates an impression that learning is a virtual ‘window’, which is capable of transmitting new information and open new horizons for the learners. This virtual window is considered as a ‘way’ to something new, for example, to an unfamiliar culture, because nowadays, with the help of the Internet, it is possible to virtually cross territories (*learning is a journey*) and be acquainted with concepts that have been unknown before.

To conclude, to know a language does not mean simply to communicate with people, but also to do it correctly, in order to avoid misinterpretations. The use of metaphors to represent the processes of learning, language learning and on-line language learning reveals the underlying views on these processes and on the nature of learning. Educators also use metaphors to explain these difficult concepts to the learners and help them find their best learning styles and choose the best ways of learning. This means that one’s perception of learning is the main determiner of the way in which they are most successful during their studies.

## **Chapter Summary**

In this chapter the author has analysed the conceptual metaphors that were found in the process of research in the academic environment on the Internet. Eight conceptual metaphors have been investigated: *learning is a change*, *learning is assimilation*, *learning is a journey*, *learning is a war*, *learning is a building*, *learning is memorization* and *learning is a window*. The author has discussed which way of learning corresponds to each of the conceptual metaphors, for example, someone who perceives on-line learning as a virtual building thinks about learning as consisting of several parts that all have to function well, in order learning would be successful. The corresponding metaphor is *learning is a building*. The learning styles proposed by Gardner (1983) were overlooked in this chapter and it was discussed,

which conceptual metaphor correspond to these learning styles. It was also examined whether these metaphors of on-line learning are different from face-to-face learning and what they have in common.

#### 4. DISCUSSION ON FINDINGS

The previous chapter analysed the conceptual metaphors of on-line learning. It was discussed which language learning method corresponds to the metaphors, in other words, the metaphors reflect the understanding of learning. This chapter is devoted to the discussion on findings; it discusses limitations and strengths of the research, as well as presents some practical applications. The author of the present paper suggests perspectives for future investigation.

Learners who perceive learning as a 'door' to a new culture consider learning as a window to gain this new knowledge; the corresponding metaphor is *learning is a window*. People who see affinity between the structure of a building and grammatical 'structures' think about learning in terms of building, which is demonstrated by the following conceptual metaphor *learning is a building*. It can be concluded from the analysis of the metaphors that have been used by the scholars that most of them perceive learning as a change that inevitably occurs while processing new information. The metaphors that reflect this are the following: *learning is a change, learning is assimilation, learning is a window, learning is memorization, and learning is a journey*. All of the metaphors show that, learners try to build new knowledge on the bases of already existing experiences in their mind, in order to comprehend unfamiliar concepts. The research also showed that the scholars perceive language learning as consisting of several parts. The metaphors that reflect this are: *learning is a journey, learning is a war, learning is a building and learning is a plant*. Each of these concepts contains several parts that all have to work properly, in order the mechanism would function well. The metaphors represent that learning process has stages and that none of these stages can be omitted, which means that learners who think about learning in terms of these concepts like studying step by step. Students who like studying dialogues by heart might consider learning in terms of memorization, which is illustrated by the metaphor *learning is memorization*.

All of the metaphors reflect on-line language learning as positive; however, it also implies that in order to make this process positive, a lot of effort has been made, for example, the metaphor *learning is a building* implies that knowledge has to be built. The conceptual metaphor *learning is a war* represents that students have to struggle with different problems, in order to be successful in their studies. The metaphor *learning is memorization* also implies that effort has to be made, because, in order to memorize something, one has to repeat it many times.

## 4.1. Practical Applications

The conceptual metaphors as *learning is a building* and *learning is a plant* imply that the learning process consists of multiple parts, which means that the stages differ. Students might use one learning style at the beginning of his studies and another at the end of them.

The rest of the conceptual metaphors that were found in the process of the research do not show on-line studies as positive or negative. Both on-line studies and face-to-face learning may turn out equally successful for people whose understanding of learning is *learning is a change*, *learning is assimilation*, *learning is a window* and *learning is a journey*, because they do not imply difficulties that might arouse only for on-line learners, they simply describe how the process of studies is perceived, for example, that it causes some changes in one's behaviour (*learning is a change*), some background knowledge is necessary (*learning is assimilation*) and that it gives opportunities to go out of the environment that the person has already used to (*learning is a journey*, *learning is a window*).

## 4.2. Limitations, Strengths of the Study and Future Research Perspectives

The paper does not intend to develop new theory, it is only practical and aims to show which metaphors reflect the concept of learning. The research did not study functional analysis, as it concentrates only on conceptual analysis of metaphors, because they are important in process of education, for they reflect the understanding of learning. They show how people perceive learning, which also determines the style in which they choose to study. The paper does not study differences between the conceptual metaphors for on-line language learning between American English and British English.

The research investigated conceptual metaphors that are used by scholars for on-line learning; yet there are many possibilities to extend the research, for example, further research on a wider empirical basis is needed to investigate the cases of the concept of learning metaphorisation in the neighbouring areas of language education. The paper did not do functional analysis of the metaphors, its aim was only to turn its attention to the cognitive linguistics, which is why for future studies it would be interesting to analyse the conceptual metaphors from this point of view.

Another possibility to extend the research is to study the differences between the conceptual metaphors that are used for on-line learning in British English and American English, in order to see whether they show some differences in the way how people perceive learning process. Another recommendation for future studies would be to investigate the conceptual metaphors that are used in studies via the Internet and those that are applied in

face-to-face learning, in order to see whether people perceive on-line learning and face-to-face learning differently.

## CONCLUSIONS

The research was undertaken to demonstrate that nowadays on-line learning form an important part of educational process, which employs conceptual metaphors, in order to facilitate the learning process. The metaphors that are used by educators on the Internet reflect how people perceive on-line learning. The perception of learning determines the method in which people choose to study.

During the research process many relevant literature sources were examined. Different books and Internet sources were read and analysed, in order to reach the goal of the present paper. The views of prominent scholars were summarised. It was concluded from the literature analysis that there had not been a sufficient amount of studies of conceptual metaphors for on-line learning process. Therefore, the research has been carried out and the conclusions are the following:

1. The conceptual metaphor for the on-line learning process is as follows: LEARNING IS A CHANGE.
2. The conceptual metaphor for the on-line learning process is as follows LEARNING IS A JOURNEY.
3. The conceptual metaphor for the on-line learning process is as follows LEARNING IS A WAR.
4. The conceptual metaphor for the on-line learning process is as follows LEARNING IS ASSIMILATION.
5. The conceptual metaphor for the on-line learning process is as follows LEARNING IS A BUILDING.
6. The conceptual metaphor for the on-line learning process is as follows LEARNING IS MEMORIZATION.
7. The conceptual metaphor for the on-line learning process is as follows LEARNING IS A PLANT.
8. The conceptual metaphor for the on-line learning process is as follows LEARNING IS A WINDOW.
9. The results show that educators understand on-line learning as something virtual, for example, a virtual building or a virtual window to a new 'world.'
10. The source domains of the conceptual metaphors of learning accentuate that learning consists of several parts, stages (LEARNING IS A BUILDING, LEARNING IS A JOURNEY and LEARNING IS MEMORIZATION).

11. Learning involves a stage of transition (LEARNING IS A CHANGE, LEARNING IS ASSIMILATION, and LEARNING IS A WINDOW).
12. Learning has an aim to reach (LEARNING IS A JOURNEY, LEARNING IS A WAR, LEARNING IS MEMORIZATION and LEARNING IS A PLANT).
13. The process of learning is connected with difficulties (LEARNING IS A WAR, LEARNING IS A JOURNEY).
14. All of the conceptual metaphors show that learning takes place on the bases of previous experiences of a person.

The goals of the research have been reached. The conceptual metaphors have been studied theoretically, as well as the conceptual metaphors for the process of on-line learning have been collected and analysed in context. The most frequently used source domains of the conceptual metaphor whose target domain is learning have been found. The similarities that cause the affinity between the concepts have been explained. The hypothesis has been validated: *if the target domain of metaphors is LEARNING, the source domains that are most frequently used in the texts about online learning on the Internet are a journey, a change, a building, a war, a plant, assimilation, a window and memorization.*

## THESES

1. The analysis of the relevant literature reveals that some individual metaphors have been studied by different scholars (Steen, 1999; Gibbs, 1999; Cameron, 1999; Low, 1996) but there has not been a systematic study that would investigate the meaning and use of metaphors for the concept of learning.
2. Although many scholars have investigated the metaphors of language acquisition (Cameron, Low, 1999; Ricoeur, 1978; Gordon, 1966; Greeno, 1991), metaphors for the concept of ‘online language learning’ have not been sufficiently researched; therefore, they are the subject of the present study.
3. Scholars have researched metaphors for on-line learning (e.g. Cronjé, 2001); however, their studies look at metaphors from pedagogical point of view, they have not investigated metaphors of on-line language learning from the perspective of cognitive linguistics, i.e. as conceptual metaphors.
4. Among many research approaches to the study of metaphor, the method of analysis of metaphors in discourse (Steen, 1999) is outstanding, as it is theoretically well-grounded and provides the means for thorough conceptual analysis of metaphors in context and well-developed procedure for investigation. Therefore, this method has been applied in the present research.
5. Some of the conceptual metaphors show that on-line learning is similar to face-to-face learning (LEARNING IS CHANGE, LEARNING IS ASSIMILATION, LEARNING IS JOURNEY); however, some of them demonstrate differences (LEARNING IS WAR).
6. The conceptual metaphor LEARNING IS A BUILDING suggests that students perceive learning as a virtual building, which consists of structures. This means that they prefer studying gradually and step by step.
7. Students who like learning dialogues by heart think that, in order something could be memorized – it must be repeated many times. The corresponding conceptual metaphor is LEARNING IS MEMORIZATION.
8. The conceptual metaphor LEARNING IS A WINDOW reveals that people perceive learning as a virtual “window” to new information, for example, an unknown culture.
9. People who consider that learning is something that happens naturally perceive learning in terms of a virtual plant – LEARNING IS A PLANT.
10. The results of the analysis of the metaphors for on-line learning in context reveal that the metaphors for on-line learning that are the most frequently used are LEARNING

IS A CHANGE, LEARNING IS A BUILDING, LEARNING IS A WAR, LEARNING IS A PLANT, LEARNING IS A JOURNEY, LEARNING IS A WINDOW, LEARNING IS ASSIMILATION and LEARNING IS MEMORIZATION. This means that nowadays the educators understand the process of on-line learning in terms of virtual concepts, for example, a virtual building or a virtual window. This means that they think about learning as consisting of several parts, as something that involves a change, as something that has a structure, and as something that is a 'way' to unfamiliar information.

11. All of the metaphors show that, learners try to build new knowledge on the bases of already existing experiences in their mind, in order to comprehend unfamiliar concepts.
12. The goal of the present research has been reached. The source domains that were found for the already known target domain learning are – a change, a journey, a war, a plant, a window, a building, assimilation and memorization.

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## APPENDIX

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Bakalaura darbs „Metaphors for Online Learning” (Datorizētās mācīšanās metaforas)  
izstrādāts LU Humanitāro zinātņu fakultātē.

Ar savu parakstu apliecinu, ka pētījums veikts patstāvīgi, izmantoti tikai tajā norādītie informācijas avoti un iesniegtā darba elektroniskā kopija atbilst izdrukai.

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11.05.2010.

Rekomendēju darbu aizstāvēšanai

Vadītāja: Doc. Dr. Philol. Natalja Cigankova \_\_\_\_\_

Recenzents: Asoc. Prof. Dr. Paed. Monta Farneste \_\_\_\_\_

Darbs iesniegts Anglistikas nodaļā

Lietvede/Studiju metodiķe:

Darbs aizstāvēts bakalaura gala pārbaudījuma komisijas sēdē

..... prot. Nr. ....., vērtējums .....

Komisijas sekretāre: