

# Evgeniya Izhko

---

## Learning styles

---

Edukacja - Technika - Informatyka 4/1, 93-100

---

2013

Artykuł został opracowany do udostępnienia w internecie przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej [bazhum.muzhp.pl](http://bazhum.muzhp.pl), gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.

## **Evgeniya IZHKO**

Dnipropetrovsk National University of Railway Transport, Russia

### **Learning styles**

In the actual pedagogy much attention is paid to the theory of learner typology. It is known that learning occurs through different channels of perception. Each student has a learning style that is a natural or usual model of perception and information processing. Ideally, the learning process must match to any type of a student, that means to offer different ways of learning. Thus, there is the problem of creating an effective lesson organization, taking into account different types of students.

Such scientists and researchers as F. Vester, D. Kolb, P. Honey, A. Mumford, N. Fleming, U. Rampillion, V. Janikova, M. Looss, Christine Falk-Frühbrodt, M.A Holodnaya, O.G. Yaroshenko, T.M. Derkach devoted their works to the theory study of the typology of the students information perception. It should be noted that despite the different approaches in determining the types of students and appropriating learning styles, most authors distinguish elements such as visual, auditory and sensory way of perception.

The students typology theory begins with the scientific works of Frederic Vester. In his book „Think, learn, forget” (*Denken, Lernen, Vergessen*, s. 49–52) 1975 he describes the types of students and explain the learning through different channels of perception [Vester 1998: 49].

He distinguishes four types [Vester 1998: 50]:

- Optical/visual type – learning through what you see;
- audio type – learning through what you hear;
- Tactile/touch type – learning through feelings and experiences/experiments;
- Cognitive/verbal type–the type that focuses on the interaction.

For effective learning of our students – philologists we consider a model of learning styles, the main principle of which is four stage series of empirical studies. This model is known as a Kolb model. The psychologist David Kolb noted four phases of learning:

- Concrete experience;
- Mental considering;
- Abstract conceptualization;
- Active experimentation.

According to the Kolb theory, every learning should begin with a concrete experience, i.e. experiment and so on. This leads to the observation and reflec-

tion of information that forms abstract concepts. At last the theory must be applied in practice. Active experiments create a new experience. So the circulation of the four phases learning happens in practice. All stages of the formation of mental actions interact and complement each other.

David Kolb distinguishes four types of students:

- 1) Converger;
- 2) Diverger;
- 3) Assimilator;
- 4) Accommodator.

The convergers apply their knowledge into practice and solve problems that arise.

The divergers have good imagination and a lot of ideas and skills and can analyze any phenomenon very well.

Assimilators have the ability to create theoretical models using inductive grounds.

Accommodators use concrete experience and think it is important to experiment and to gain knowledge in such way [Smith 2001].

It is interesting how Peter Honey and A. Mumford [Honey and Mumford 2006: 19] have developed the Kolb theory and have introduced their own characteristics.

These scientists also divided learning into four phases, but understand them in a different way:

- 1) Having an experience;
- 2) Reviewing the experience;
- 3) Concluding from the experience;
- 4) Planning the next steps.

According to these phases four types of students are distinguished [Honey, Mumford 2006: 19]:

- Activist;
- Reflector;
- Theorist;
- Pragmatist.

We consider the Neil Fleming's VARK model as the most common and easiest model, which divides students into the following types [Fleming, Mills 1992]:

- visual;
- aural (or auditory);
- reading and writing;
- kinetic or tactile.

In our study we rely on the classification proposed by Christine Falk-Frühbrodt [2005] and her description of types of students:

- Audio type;

- Visual type;
- Motor type;
- Communicative type;
- Individual directed type;
- Media directed type.

The audio type learns mainly through listening and speaking. These students memorize poems or songs quickly. They also have the ability to draw conclusions. They listen attentively, speak perfectly and are good at combining information.

The visual type trusts that he sees. These students remember the details well. They work exactly and accurately. Their language is often colourful, rich, imaginative, full of details. Reading and making puzzles are the favourite doings of this type.

The motor type (learning by doing) is a strong type that never has doubts or hesitate. He trusts his feelings and instantly introduces impulses in his life. These are practical students who consider learning as an active process.

The communicative type is a good speaker and even a better listener. During the learning they especially like to take an active part in organization of the lessons. They want to ask the well thought out questions and to call in question the prescribed dogma. The other students like their sweet nature, that's why the communicative types are often chosen as speakers in the group. The communicative type studies with pleasure and interacts with others very well. The students of this type have a large circle of friends and often start to engage in politics or the environment protection early.

The individual directed type needs a pleasant and ready to help teacher staff. The best form of learning is an individual exercise. If a student has a good interaction with the teacher, it will be good at learning as well as others. If it is not a very good relationship with the teacher, he can not show their full potential. The individual directed type is not self-confident and often has doubts. He has little or no friends.

The media directed type learns with pleasure using technical means of information. He doesn't usually need a teacher, he is able to get a lot of learning materials from the virtual teachers. This type doesn't only use audio-visual media and the PC for games, but also gets knowledge from it [Falk-Frühbrodt 2005].

Numerous tests are developed in teaching practice. Every learner can determine his learning style using these tests. There are some links that could be used by everyone in learning practice: free learning styles inventory (test, quiz or questionnaire ...<http://www.learning-styles-online.com/inventory/>, The VARK Questionnaire <http://www.vark-learn.com/english/page.asp?p=questionnaire>, learning style tests <http://www.learningdoorway.com/learning-style-tests.html> [*Free learning styles inventory*, The VARK Questionnaire, learning style tests].

We consider information in the article of Maaïke Looss very important for our experiment. It should be noticed that we get 10% of the information from

what we read, 20% – from what we hear, 30% – from what we see, 50% – from what we hear and see, 70% – from what we say, 90% – from what we do by ourselves [Looss 2001: 8].

We share the opinion of Christine Falk-Frühbrodt that the students types are not isolated in the pure form in practice. There is a variety of basic types connections [Falk-Frühbrodt 2005].

Janikova argues that there are also identifications of the learning types in the learning that is done through multi-perception. The ability of each student to receive the information in a particular way is valued differently. Individual types never occur in the pure form and are found in the individual mixed forms. The learning habits also play an important role [Janíková 2001].

Janikova emphasizes that a necessary condition for effective learning for every student is to realize his particular strengths and weaknesses and to choose the exercises proposed by the teacher consciously. They will help him to learn the material effectively [Janíková 2001].

We think that the best way to put this idea into practice is using the key elements of autonomous learning: the focus on the individual, the student's full responsibility for their learning, the knowledge of the self-control skills and learning strategies, the consultative teacher role, the various forms of the autonomy learning organization.

We believe that lessons shouldn't be only traditional. There are various alternative organizational forms, such as learning with computers, projects, so-called learning stations that promote autonomy learning.

Learning with the computer has sense and advantage of the instant feedback connection. The computer is a universal addition to other educational materials and offers the possibility of self-organized learning, i.e. freedom of the choice of the subject, the type, the complexity and the duration of the tasks [Pišova 2007: 16].

During the station learning the students receive from the teacher the work plans with the obligatory and alternative tasks, that are called stations. The students have an opportunity to choose time, sequence, social forms (one student work, work in pairs or in groups) of the tasks to do these tasks for definite time. The obligatory tasks must be done and they serve for processing the new material or for repetition and training [Pišova 2007: 19].

Various forms of work such as writing, reading, listening, working with computers, playing, movement and even the perception of smell and taste provide diversity in education. The teachers accompany the students during the learning process, help them to plan their next learning steps.

Taking into account different views on the types and styles of learning and using a variety of organizational learning forms, we attempted to develop a lesson that corresponds to the principles of autonomy learning and would be ideal for all types of students.

The subject of the lesson: Mode und Geschmack.

The topic: Bekleidung.

The level of the students: A2.

The Equipment:

- Computers with Internet connection;
- Projector;
- Handout (cards, printed texts and tasks, paper dolls and cloths, perfume testers);
- Dictionaries;
- Desks arranged in a circle.

The lesson run:

At the beginning of the lesson, the teacher asks the students to guess the topic of the lesson. He gives its description, but does not name it. When the students have guessed that topic, the teacher writes a topic on the blackboard and asks the students to come up and write all the words that are associated with the concept „Mode und Geschmack“. Then the teacher encourages the students to choose one of the proposed tasks, as well as the way, how they will do it and to decide, if they work alone or with a group of students.

The tasks that are offered, suit the different learning styles.

The tasks:

1. Read and translate the text „Modegeschichte“. Choose the keywords, give them the definitions and type them in the computer. Sum up all information of the text. The text consists of several parts „Mode der 20-ger Jahren“, etc. (400 printed symbols), each part has a completed sense. The student must only read one part. So one or more students can perform this task. The teacher role during this task is to help the students to understand the grammatical phenomena, which are often found in the text, namely the comparison of adjectives and the declension of adjectives.

2. Pantomime: show the words that are on the cards. Make up the story from these words.

3. Wear the paper dolls: a woman, a man, a girl and a boy. Represent your choice. The students are offered the cards with the key words and phrases and the grammar rules in the tables to the themes „Comparison of adjectives and the declension of adjectives“ that can help to express their opinions.

4. Choose the scent from the perfume testers for different individuals and describe it. Prove your choice using the text „How to wear a perfume“, as well as the cards with the adjectives that describe the scent.

5. Find information about the latest fashion in the Internet. Show and tell other students, what is offered to wear this season. This information can be discussed after the presentation of this task.

6. Role-playing game. The students should imagine that they are the family members. The daughter is going out with a young man for the first time. She is trying on different clothes and is asking her family for an advice. The happy,

kind and cheerful mother agrees with any choice of her daughter. The strait-laced and serious father never wants her daughter to have a date. He criticizes any of her outfits. The good elder sister is giving good advice. The younger brother is watching with enthusiasm and is also commenting the situation. The grandmother is giving her out-of-date advice.

The family member number can be different, depending on the number of the students who will participate in this game. The students may change their roles or think out their own versions.

7. Listen, repeat and learn words using the software program. Listen to a song about fashion (or a dialogue), fill the gaps in the text of the song.

The tasks are organized in such way that the students can use their previous experience and knowledge and connect them with new information. It takes about 20 minutes to do each task. During this time the students work on their own, but they may ask the teacher for help.

The teacher has a consultative role. He should watch carefully how the students are doing their tasks in order to help them in time. The teacher must have the grammar schema, tables, cards with phrases that can help express thoughts, opinions etc. If it is necessary, the teacher can provide the students with that material and thereby save the time.

The students must show their results to the group, share information, expand knowledge of other students and engage them in interaction.

During such lesson the students train all channels of perception. The lesson is organized in such way that each student acquaints with the new vocabulary by himself on a certain way that is the best for his type of perception. Then the student thinks how he will explain this knowledge to other students and share this information with them. In the second part of the lesson the students interact with each other, repeat, review and extend their knowledge constantly, participate in the learning process as an active or passive figure.

In order to determine the effectiveness of such learning we have held a research in two groups. The students number is 14 people in the first group, and 15 – in the second one. First, the students were offered to do a learner type test to determine the per cent relation between the number of the students of the different types of perception and information understanding.

It was found that 29% of the students belong to the visual type, 27% – to the tactile type, 23% – to the communicative type, 21% – to the audio type. It is interesting that by many students (53%) two or even three ways of information perception are almost equally developed. But one of them is dominant. When developing the tasks, we payed our attention to the dominant one. It should be noted that almost all students (87%) learn through the visual perception channel very well.

The second part of our research is the realization of the proposed lesson. The results are very interesting and differ from each other depending on the group in which they were held. First, the students have chosen tasks and divided them among themselves. We decided to display the received data in the comparison table.

<b>Tasks</b>	<b>Group № 1</b>	<b>Group № 2</b>
Tasks № 1, № 5 (for the visual type)	№ 1 – 4 students, № 5 -1 st.	№ 1 – 3 st., № 5 – 2 st.
Tasks № 2, № 3, № 4 (for the tactile type)	№ 2 – 1 st., № 3 – 2 st., № 4 – 1 st.	№ 2 – 1 st., № 3 – 1 st., № 4 – 2 st.
Task № 6 (for the communicative type)	№ 6 – 4 st.	№ 6 – 4 st.
Task № 7 (for the audio type)	№ 7 – 1 st.	№ 7 – 2 st.

Comparing the data, we can conclude that the students choice in different groups is almost identical. It should be emphasized that the results of the choice of the tasks coincide with the results of our students testing.

Summarizing the lesson results, it should be noted the highest level of students interest while doing the tasks and during the demonstration of the results and exchanging of experience. It means a good motivation, which has led to more effective learning. The students have learned much more information than at the traditional lesson. Unfortunately it should be noted, that not all students have coped with the tasks. Some students could not organize their time properly, that's why they haven't do all their tasks in time. It was obvious, that the lesson was held much more effectively in the group, where the students knew their learning types and were previously familiar with the learning strategies than in the group in which the students only knew the traditional forms of learning.

Every student is gifted in a different manner and requires an individual way or an individual method for learning the new vocabulary. For successful learning results the learner types must be determined and the learning strategies must be shared properly. It depends primarily on the teacher, which strategies and techniques he will introduce to his students and thus will provide the development of autonomous learning.



## References

- Falk-Frühbrodt Ch. (2005), *Lerntypen I, II, III*. IFLW Berlin (Institut für integratives Lernen und Weiterbildung); <http://www.iflw.de/wissen/lerntypen.htm>
- Fleming N.D., Mills C. (1992), *Helping Students Understand How They Learn*. The Teaching Professor, Vol. 7, No. 4, Magma Publications, Madison, Wisconsin, USA.
- Free learning styles inventory (test, quiz or questionnaire)*; <http://www.learning-styles-online.com/inventory/>
- Honey P., Mumford A. (2006), *The Learning Styles Questionnaire, 80-item version*. Maidenhead, UK, Peter Honey Publications, 69 p.
- Janíková V. Michels-Mc Govern M. (2001), *Aspekte des Hochschulfachs Methodik und Didaktik des Unterrichts Deutsch als Fremdsprache im Überblick*, MU Brno.
- learning style tests <http://www.learningdoorway.com/learning-style-tests.html>
- Looss M. (2001), *Lerntypen? Ein pädagogisches Konstrukt auf dem Prüfstein*. Die Deutsche Schule, 93, Heft 2, 186–198; [http://www.ifdn.tubs.de/didaktikbio/mitarbeiter/looss/looss\\_Lerntypen.pdf](http://www.ifdn.tubs.de/didaktikbio/mitarbeiter/looss/looss_Lerntypen.pdf)
- Píšová E. (2007), *Wortschatzerwerb autonom*. Diplomarbeit, Masaryk-Universität, pädagogische Fakultät, Lehrstuhl für deutsche Sprache und Literatur, Brno, 108 s.
- Rampillon U. (2000), *Aufgabentypologie zum autonomen Lernen. Deutsch als Fremdsprache*. Ismaning: Hueber.
- Smith M.K. (2001), *David A. Kolb on experiential learning*. Retrieved October 17, 2008, from: <http://www.infed.org/biblio/b-explrn.htm>
- The VARK Questionnaire* <http://www.vark-learn.com/english/page.asp?p=questionnaire>
- Vester, Frederic (1998), *Denken, Lernen, Vergessendtv Denken, Lernen, Vergessen—Was geht in unserem Kopf vor, wie lernt das Gehirn, und wann lässt es uns im Stich*. 25. Auflage, München.
- Холодная М.А. (2004), *Когнитивные стили. О природе индивидуального ума*. 2-е издание, СПб.: Питер – 384 с.
- Ярошенко О.Г., Деркач Т.М. (2012), *Порівняльний аналіз стилів навчання студентів різних спеціальностей*, 1(74)//Педагогіка і психологія, с.43–47.

## Abstract

The article is devoted to the different learning styles. The classification of learning styles is given. The lesson that corresponds to the principles of autonomy learning and suits for all types of students was developed. The results of the lesson are introduced in the article.

**Key words:** learning styles, perception, information processing, types of students, learning style tests.