МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
МІНІСТЕРСТВО АГРАРНОЇ ПОЛІТИКИ ТА ПРОДОВОЛЬСТВА УКРАЇНИ
ВІННИЦЬКИЙ НАЦІОНАЛЬНИЙ АГРАРНИЙ УНІВЕРСИТЕТ
КАФЕДРА УКРАЇНСЬКОЇ ТА ІНОЗЕМНИХ МОВ

НАУКОВІ ЗАПИСКИ

- педагогіка
- психологія
- мовознавство
- методика викладання
- філософія
- історія
- соціологія
- політологія

Серія: Соціально-гуманітарні науки

ВИПУСК 1 2013

УДК 378:37.013:371.315
ББК 74.58
Н 34

Наукові записки Вінницького національного аграрного університету. – Серія: Соціально-гуманітарні науки / Гол. ред. Калетнік Г.М. – Вінниця: ВНАУ, 2013. – Вип. 1. – 170 с.

Рекомендовано до видання рішенням
Вченої ради Вінницького національного аграрного університету
від 10 квітня 2013 р. (протокол № 8)

УДК 378

Slobodianiuk A.A.,
teacher, VNTU
Nasonova N.A.,
senior teacher, VNTU

INFORMATION DESIGN IN STUDYING FOREIGN LANGUAGES

Стаття присвячена ролі інформаційного дизайну в пізнавальної діяльності студентів під час вивчення іноземних мов.

Ключові слова: *інформаційний дизайн, дистанційне навчання, веб-дизайн, комп'ютерна графіка, знання, іноземні мови.*

Статья посвящена роли информационного дизайна в познавательной деятельности студентов во время изучения иностранных языков.

Ключевые слова: *информационный дизайн, дистанционное обучение, веб- дизайн, компьютерная графика, знания, иностранные языки.*

The article is devoted to the role of information design in cognitive activity of students while they are studying foreign languages

Key words*: information design, e-learning, , web design, computer graphics, knowledge, foreign languages.*

Introduction. Nowadays the society is at the stage of its informational development, development of new information technologies. There is a steady growth of getting information with the development of internet. The process of studying at higher educational institutions is connected with working with information, learning much, especially it concerns studying foreign languages. The students have to learn much, memorizing information, words, word combinations, different rules.

The key point of studying process is the ability of students to organize the information. It is announced as one of the key competences –the term , that appeared with Bolon Process in Ukraine [3].

The relevance of the organization of information is so great that a new trend originated in science. It is called “information design”. It is interdisciplinary area of science . The discipline deals with efficient presentation of complex sets of information.

Setting the problem. The students of higher educational institutions, especially those who study foreign languages, have to master much information in the situation

of great shortage of time. Taking into consideration that there is the shift in education from the teacher-guided learning process to student - guided one, the new interdisciplinary approach of information design may be very useful for students. It may help the students to work effectively in studying foreign languages.

It should be stressed, that, teaching learning strategies is very important in working with adults. Teachers should help their students to master the strategies of learning English, their role should shift to the role of an observer and a helper, who is always ready to render any assistance to their students.

Research. The discipline has its roots in psychology of perception and information theory, the pioneer of which was Klod Shennon [7], who is considered the father of mathematical model of communication, his works were developed further in 40s of the previous century by the works of and V.A. Kotelnikov and others.

Being an interdisciplinary science, information design is closely connected with the research in different sciences. First of all , it concerns computer graphics, web-design, psychology , sciences, studying a human brain, very important achievements are researches in the field of informational approach in science about coding and decoding information.

The aim of the article is to consider the role of information design in cognitive activity of students for their effective studying foreign languages.

Description. The rapidly increasing complexity of data from our everyday life has in the past decades led to information design distinguishing itself in the broad field of visual communication as a specific discipline with its own courses of study, practitioners and theoreticians [1]. It became an interdisciplinary branch of science.

The discipline is still in the process of its development. Information design is explained in only three languages in Wikipedia, but its approach is as old as the history of mankind. Information design focuses on the efficient graphic design of complex sets of information employing an interdisciplinary approach .It has more in common with the systematic gathering of information as it is performed in academic or journalistic research [6].

“Information design is the transfer of complex data to, for the most part, two-dimensional visual representations that aim at communicating, documenting and preserving knowledge. It deals with making entire sets of facts and their interrelations comprehensible, with the objective of creating transparency and eliminating

uncertainty. At best, representations of information achieve a transfer, by deriving additional knowledge and creating interaction via the organization, combination and density of facts. They are not representations of what one sees but what one knows" [5].

The top priority lies in addressing the content of the information. Methods of navigation, order and abstraction belong to the basic knowledge required

The practice of information design implies viewing the world through a special filter, disassembling it with analytical curiosity, then assembling it again in a simplified way with a feeling for precision and details.

Though information design is connected with innovative graphic representations of information, methods of order, navigation and interaction are the most important for students, studying foreign languages.. New essential standards for the interpretation of complex sets of facts were established, and new orientation aids were provided by information design. Information design intends to elaborate common solution strategies together with other disciplines.

There is no formula for good information design. Many tasks ask for new concepts and graphic solutions, because the amount of information is constantly increasing and changing its structure.

The awareness that information design can be inspiring, enlightening, entertaining and functional is yet to be achieved by many of its practitioners.

But the term" information design" is a topic of some confusion and uncertainty among practitioners involved with information solutions. This is partially a result of the rise and evolution of information architecture , which evolved with the explosion of the web. There is general confusion which is further complicated by the similarity in the terms *information architecture* and *information design*.

Though there is not consensus on exactly what information design is , the following selection of definitions of information design taken from different resources [4] may help to catch the main idea of information design:

- Complex ideas communicated with clarity, precision and efficiency.

- The point of intersection between language disciplines, art and aesthetic disciplines, information disciplines, communication disciplines, behavior and cognition disciplines, business and law and media production technologies.

- Sense-Making.

- The structure through which visual disciplines are expressed.

- The defining, planning and shaping of the contents of a message and the environments it is presented in with the intention of achieving particular objectives in relation to the needs of users.

- How we interact with and represent information.

- A design that supports the goals of the user.

- Information design is the integrator that brings other disciplines together to create excellent information solutions.

"Information design addresses high level information problems to provide the most possible clarity, understanding and effectiveness. It is not important what tools are used to achieve it, but rather that the final deliverable provides the greatest possible degree of understanding. In order to achieve that ambitious end, information design must be open to any and every discipline or field of thought. It must also encourage the implementation of systemized processes for the design of successful information, synthesizing the established processes in the myriad of information disciplines" [4].

Information design serves as a resource for other disciplines engaged in the creation of better understanding and the building of human knowledge. It improves the capabilities of those who is engaged in creating information.

Information design encourages the research that increases our understanding of information and the effect that it has:

- how and why people respond to information,
- how the human brain processes information and builds knowledge,
- how humans organize knowledge and convert it into improved behavior and operation.

Better understanding of these factors enables to create the best possible information and communications.

Communicative approach is the important approach announced in studying foreign languages. Information has value only when it is successfully communicated. If it cannot be accessed or understood it does not have value. It is important to stay true to the goals that the information is intended to support.

Information design and data visualization integrate tools, technologies and methods that enable human beings to communicate information more effectively and to extract at a glance greater meaning from it. Information design addresses effective communication with a rational, scientific eye. Data visualization is key to extracting

instant meaning from large amounts of information [2].

Combination of information design and e-learning is an ideal one from all points of view. It is the computer-aided learning that helps to understand the link between cognitive processes and means of visualization of cognitive processes: structurization, categorization, making hierarchies by a brain (information architecture) - what is externally may be expressed on the screen of the computer in the form of navigation, hypertext by means of words, any signs, pictures , elements of computer graphics.

It is Richard Saul Wurman who coined the term information architecture in 1998 [1]. Other leaders in the information design/information architecture field treated information design and information architecture as synonyms, but there is no consensus about it, because there is no sometimes clear understanding differences and the unity of information architecture in cognitive structures and in web-designing.

This problem refers us also to interdisciplinary information approach of coding and decoding information which started from Klod Shennon's theory of radio signals [7].

It is a well known fact that a computer is a model of brain's work. While designing this "clever machines", the engineers put in the foundation of these machines the work of a human brain.

At the present moment, the situation is the opposite one – understanding computer technologies helps to understand cognitive processes. As for studying foreign languages, information design is of great importance. It concerns studying topical vocabulary, "active" and "passive" vocabulary, developing reading and speaking skills, long life studying the foreign language.

In addition to theoretical consideration information design, it is necessary to give also some practical items.

These are summed up recommendations [4] for utilizing information and integrating the principles of information design into the process of studying foreign languages:

- Take the time to make sure your goals are sound, and remain focused on them throughout the process. Remember that setting and achieving the correct goals is the purpose of the eventual information and the reason why information needs strong design.

- The information and communication should be well designed. Be mindful of how you create and disseminate information during development

- Knowledge of the interaction and exploration of different factors will make the information as meaningful to the eventual participants as possible, that's why, try to understand how the information you are creating will be experienced or communicated by the participants, having answered the following questions:

1. Who is the intended audience?

2. Which of their senses will/should/could be engaged?

3. How will the context of that experience, or the situational variables involved, influence the information itself?

Knowledge of the interaction and exploration of different factors will make the information as meaningful to the eventual participants as possible.

- Remember that valid and thorough context is critical to providing strong information solutions.

- Remember that no one synthesizes everything that goes into well-designed information. Seek out the information that you need. Be aggressive in learning more, asking questions and seeking out answers.

- Make certain the information promotes understanding.

- Consider relevance not only from the perspective of what your participants want, but also from the perspective of what they need in order for your overall goals to be realized. Try to evaluate valuable and appropriate immediately.

- You should eliminate as many barriers to understanding as possible. Clear information successfully addresses the needs of the participants.

- You should remember what makes an impact and leaves a lasting impression. The information you design needs to get attention and it needs to promote memory and recall.

Probably, some or many of these steps have been incorporated by the students, but approaching the process in a more formal, procedural way may help the students to stay focused on what is important and remain mindful that the different tactical components that contribute to successful information solutions are part of a larger, more complex whole.

Regardless of a discipline or approach, the above-mentioned steps are appropriate for everyone engaged in the creation of information

Conclusion. It is difficult for students to create information that successfully

accomplishes its goals with definite relevance, clarity and memorability, but incorporating information design makes it far more likely that the students will achieve that success.

References:

1. Шеннон К.М. Работы по теории информации и кибернетике / К.М. Шеннон. – М.: Изд. иностр. лит., 1963. – 830 с.

2. Information Design / [ed. by Robert Jakobson and Richard Saul Wurman]. – L.: MIT Press, 1999. – 373 p.

3. Information Design and Data Visualization / [Electronic resource] // http://www.masternewmedia.org/ information_design_and_data_visualizatio

4. Key Competence for Life Long Learning. A European Comission / [Electronic resource] // http://ec.europa.eu/education/policies/2010/doc/basicframe.pdf

5. Knemeyer D. Information Design: The Understanding Discipline / Dirk Knemeyer / [Electronic resource] // http://www.boxesandarrows.com/view/information_design_the_ understanding_discipline

6. Schuller G. Complexity / Gerlinde Schuller. – March 14, 2007. – [Electronic resource] // www.aiga.org/content.cfm/complexity

7. Schuller G. Information Design / Gerlinde Schuller. – March 14, 2007. – [Electronic resource] // http://www.aiga.org/content.cfm

УДК 377.1:37.011

Стаднійчук І.П.,
викладач,
Ладижинський коледж ВНАУ

МЕТОДИКА ДОСЛІДЖЕННЯ СФОРМОВАНОСТІ ФАХОВИХ КОМПЕТЕНЦІЙ МАЙБУТНІХ ТЕХНІКІВ-МЕХАНІКІВ У ПРОЦЕСІ ПРОФЕСІЙНОЇ ПІДГОТОВКИ

У статті наведено алгоритм побудови методики дослідження сформованості фахових компетенцій майбутніх техніків-механіків; сформовані позитивні й негативні наслідки даного експерименту; визначено три рівні формування фахових компетенцій з електротехніки.

Ключові слова: *фахові компетенції, етапи дослідження, експертна оцінка, критерії, показники і рівні вимірювання.*

В статье представлено алгоритм построения методики исследования формирования профессиональных компетенций будущих техников-механиков; сформированы позитивные и негативные результаты данного эксперимента; определено три этапа формирования