

INFLUENCE MOTIVATIONAL FACTORS AND LEARNING STYLES ON EFFICIENCY E-LEARNING

Željko Pekić

Maritime Faculty of Kotor, Dobrota 36, Kotor, Montenegro, zeljkop@ac.me

Nađa Pekić

Center for social working, Gurdic bb, Kotor, Montenegro, nadjadjikanovic@hotmail.com

Draško Kovač

Maritime Faculty of Kotor, Dobrota 36, Kotor, Montenegro, draskokovac@t-com.me

ABSTRACT:

In this study we are primarily engaged in the examination of motivational factors in e-Learning and their impact on learning styles. The aim was to examine whether different learning styles require different forms of motivation. It is well known that there are two basic types of motivation (intrinsic and extrinsic), the study found correlation of each with a different learning style preferred by users Moodle platform, the Faculty of Maritime Studies Kotor.

KEYWORDS:

E-Learning, learning styles, intrinsic motivation, extrinsic motivation

UTICAJ MOTIVACIONIH FAKTORA I STILOVA UČENJA NA EFIKASNOST E-LEARNING-A

SAŽETAK:

U ovom radu smo se prvenstveno bavili ispitivanjem motivacionih faktora u e-Learning-u i njihovim uticajem na stilove učenja. Cilj je bio ispitati da li različiti stilovi učenja zahtijevaju različite oblike motivacije. Kako je poznato da postoje dvije osnovne vrste motivacije (intrinzična i ekstrinzična), u istraživanju je pronađena povezanost svake od njih sa različitim stilom učenja koji preferiraju korisnici Moodle platforme, na Fakultetu na pomorstvo Kotor.

KLJUČNE RIJEČI:

Elektronsko učenje, stilovi učenja, unutrašnja motivacija, spoljašnja motivacija

1. INTRODUCTION

E-Learning is one of the most popular tools for the development of human resources in institutions.

Such solutions are increasingly being used in businesses, non-governmental organizations, public authorities and institutions of pedagogical activities (school and college). These types of platforms have a number of advantages that affect the presentation of information, adoption information and user connectivity. Although there are a number of benefits that are more than in the beginning used these platforms, perceived, there are limitations that are evident. One of the chief drawbacks is the motivation of e-Learning system. Although the identified shortcomings, they often continue to exist thereafter, suggesting removable hard vulnerabilities.

2. MOTIVATION

Motivation can be defined as the totality of the processes that drive and maintain certain activities and behaviors towards achieving the set goals. Motives are some internal factors that drive and direct the activities, determine their content, duration and strength. In the process of motivation are relevant three elements:

- **motive** - such personality dispositions,
- **activity** - which runs and maintains the motive and
- **goal** - which the activity is directed.

There are two types of motivation: intrinsic and extrinsic. Intrinsic motivation starts from within a person. This is the motivation that is intrinsic value character of a person. These are activities that meet the psychological needs of the individual, a healthy ambition to have any kind of external reward. An example of intrinsic motivation is a hobby activity, which often brings no financial benefit, a person often aspires to perform the same. This is called Chiksentmihaly Flow-experience. In particular, mental and physical condition of the person, a kind of ecstasy, and some kind of creative inspiration. The second type of motivation is extrinsic. That kind always has an external triggers, in the form of prizes. This type of motivation involves goals, values and interests of others and not ourselves. Example extrinsic motivated student is a student who learns a subject so to get a good grade, to avoid punishment or receive a reward.

In a study 2010th years (Mykowska, A., Wolski, K) were examined factors that influence intrinsic motivation. The results indicate that this is one of the most important factors that influence the willingness to use e-Learning.

Research has shown that promoting the student's intrinsic motivation, communication is very important in the classroom or in the hall and the way in which daily produce and present information. What is the focus of these results is that the "dry facts" eventually become monotonous and that it would be important that any information presented through a practical example. It runs beside the motivation and creativity and abstract thinking. Thus forming their individual way of assimilating information. In addition, autonomy is one of the most important factors for the development of intrinsic motivation.

2.1. Theories and models of motivation

2.1.1. Maslow's theory

According to Maslow's theory of motivation it means result of the hierarchy of needs:

- The need of self-actualization;
- The need for respect;
- Social needs (sense of belonging, love ...)
- The need for security and survival, self-protection;
- Physiological needs (hunger, thirst, sleep...).

2.1.2. Social-cognitive model of learning

Social-cognitive model of learning emphasizes the importance of self-efficacy and self-regulation in e-Learning. Self-efficacy is primarily related to an individual's belief about his ability to perform a certain task at a certain level, while self-regulation refers to the control of the learning activities. Based on this we can conclude that social-cognitive model to connect the cognitive and affective processes.

2.1.3. Keller's ARCS model

The model is named as an acronym for the four basic factors: Attention, Relevance Confidence and Satisfaction.

2.1.4. Moshinski model

There are two types of students: those with an active attitude towards life or those with intrinsic motivation, which takes very little extrinsic motivation and those with a passive attitude towards life, they need a extrinsic.

3. LEARNING STYLES

Teachers were not often aware of the importance of equality and respect for the student-teacher relationship. Did not work students to actively listen and make notes in class. Its role is far more complex. It is clear that in the learning process are activities that are presented in different ways. Every of these methods won't be appropriate for each student. It is necessary to distinguish between the students, not just their ability and motivation for learning, but also for the individual styles of learning.

VAK model: Visual learning style,
Auditory learning style and
Kinesthetic (physical) learning style.

VISUAL learning style

- it is necessary to "see" the information
- prefer illustrations, read written, excellent in written recording of lectures
- most material explained: "It looks good ..." "Let me see ..." "I have a complete picture ..."
- "see" words
- meticulous they are good organizers
- fast talking
- plan in the long run
- observed details
- acquire material with visual associations, remember physiognomy
- oblivious jokes
- have a good sense of color, can engage in various arts (painting)
- noise it does not interfere with the perception of information
- forget verbal instructions
- good readers and love reading more than they read
- during tel. talks, lectures like to draw
- easier to conceive an idea than it is a description
- withdrawn nature

AUDITIVE learning style

- information is necessary to hear in order to remember
- prefer listening
- generally understood as explaining: "I hear what you're saying ..." "I'm listening ..." "That sounds good ..."

- learn listening material
- mainly "talking" to themselves during the execution of activities
- during the interview noise can often be disturbing factor for them
- when they read most often to make the voice or moving a little lip
- like to read aloud
- prefer listening and prefer lectures about what they know
- can't imitate other people
- do not pay attention to the manuscript
- like to frequent the details when describing something
- they have problems with activities that include visualization
- prefer music instead of art

KINESTHETIC (physical) learning style:

- adoption of information commonly used by manipulating objects
- used to describe as: "I'm not following you ...", "Return-I got lost ..."
- used verbs in conversation
- in conversation with others often poke to explain something
- communication is usually closer to the person they speak
- prefer physical activity
- like dancing
- tend to dress casually and sports
- like to create things and try new activities
- remember best performing certain movement
- not enjoy reading, and often text accompanying finger
- respond well to physical rewards
- used gestures and facial expressions
- often have good results in sports
- prefer to learn using computers to make learning This stimulated by touching the keyboard
- they are extroverted person

In the end it can be concluded that cognitive learning styles in a large measure of influence on the design and effectiveness of e-Learning. It is important to recognize that cognitive style suits the student and adjust to e-materials. As it is very difficult and requires a lot of time e-corrected material every time you start a course, it is best to e-materials to make a variety so that it contains all the components that require cognitive learning styles. With ever-advancing technology, e-teacher should not be a problem to create such diverse e-materials.

Quality e-Learning is the ability to get students alike devote every cognitive learning style. This means that in the process of e-Learning by applying the method of learning that suit every learning style. Collaborative and cooperative e-Learning is enabled by grouping students into groups to facilitate electronic communication and collaboration, but should take into account that groups are composed of students who have similar learning styles, expectations, knowledge.

4. SCOPE AND PURPOSE

The main subject of this empirical research is an overview of nature (direction and intensity) correlation of motivation and learning styles to the VAK model. More specifically, the relationship was perceived intrinsic and extrinsic motivation with all three learning styles.

Research goals:

The scientific goal is significant in the sense that it examines the nature of the relationship, which in psychological and statistical terms is relevant to science in general and for further research related topics.

The practical goal is to obtain data to contribute to more efficient solving practical problems of e-Learning in institutions of different character. It is necessary to present the data obtained, so that teachers have a clearer picture of the factors that significantly affect the motivation of students.

Research variables:

Dependent: intrinsic and extrinsic motivation

Independent: three styles of VAK learning

5. RESEARCH METHODOLOGY

5.1. The sample of respondents

The sample consists of 100 students from the Faculty of Maritime Studies in Kotor. The sample is of medium size. It is a deliberate and random basis. Intentional, because we are solely focused on students FZP Kotor, as users Moodle platform, and random, because the randomly selected 100 students.

5.2. Research methods and instrument

This was systematic non-experimental research.. The study used measurement instruments:

- Scale intrinsic motivation, constructed by the authors. The scale of Likert-type and contains 8 items. Chrombah alpha coefficient was **$r = 0.623$**
- Scale-extrinsic motivation, constructed by the authors. The scale of Likert-type and contains 8 items. Chrombah alpha coefficient was **$r = 0.687$**
- VAK questionnaire to assess learning styles, taken from:
http://www.asoo.hr/userdocsimages/andragoski_modeli_poucavanja.pdf

6. REVIEW AND ANALYSIS OF RESEARCH

All those involved in teaching using all three channels to receive information from the outside world. Thus was created the VAK model of learning. Figure 1 shows the statistics data VAK model obtained on a sample of students from the Faculty of Maritime Studies Kotor.

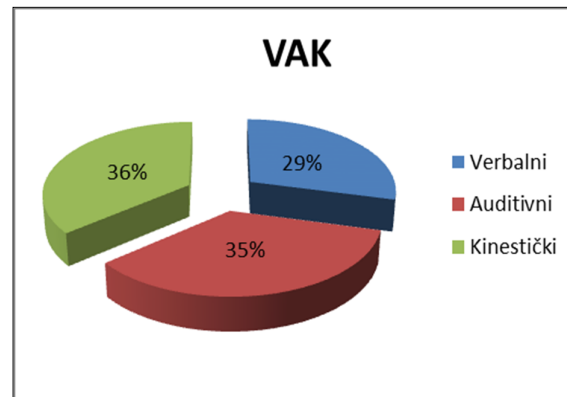


Figure 1: Statistics VAK model of learning

Table 1: Intrinsic motivation and VAK model

Intrinsic motivation and visual type VAK model $\chi^2=2,547$ df=2 C=.256 p=.233
Intrinsic motivation and auditory type VAK model $\chi^2=10,007$ df=2 C=.392 p=.009
Intrinsic motivation and kinesthetic type VAK model $\chi^2=1,998$ df=4 C=.182 p=.619

Table 1 can be examined to see the connection between intrinsic motivation and 3 types of VAK model. The results imply that no statistical significance at the 0.01 level between intrinsic motivation and type of auditory VAK model. This means that with 99% probability can be argued that these two variables are correlated. This could be attributed to auditory learning style to the personality that have intrinsic motivation for adoption information. They have a good motive to be learned. Without the additional motivators they just enough theory to assimilate information and process them in a cognitive system in its conception. In the other two types of no relationship between the dependent variable in the study, motivation.

Table 2: Extrinsic motivation and VAK model

Extrinsic motivation and visual type VAK model $\chi^2=8,771$ df=2 C=.257 p=.060
Extrinsic motivation and auditory type VAK model $\chi^2=3,22$ df=2 C=.120 p=.721
Extrinsic motivation and kinesthetic type VAK model $\chi^2=4,008$ df=2 C=.11 p=.199

Table 2 shows that between extrinsic motivation and three VAC model is no statistical significance on any level. However, in the visual type VAK model p value is .060 and the chi-square value is 8.771, which leads to the tendency of the larger sample was probably obtained statistical significance at the 0.05 level. This means that with 95% probability can be argued that students who belong to the type of visual learning have more extrinsic motivation. This is simply explained by the fact that such a learning style to the personality that require external stimuli as a motivator. Their imagination and creativity excites the visual material, with charts, tables, colorful content.

7. CONCLUSION

From the results it can be seen that motivation is one of the most important factors that influence the acquisition of knowledge. As its divided into internal and external, each of which is associated with some of the learning styles. It is important to have access to that are closely related to intrinsic motivation and auditory type VAK model and extrinsic motivation and visual type VAK model. It is relevant to conclude that these are all indicators that contribute to successful teaching and improved student achievement.

LITERATURE

- [1] Bjekić, D. (2008). Psihologija e-učenja i e-nastave 6, 1-17, Preuzeto 22.02.2012. sa E-lab, Tehnički fakultet, Čačak
- [2] Bjekić, D., Dunjić-Mandić, K. (2007). Stilovi učenja i profesionalne preferencije maturanata gimnazije, Preuzeto 26.02.2010. iz Pedagogija LXII 1/07, 48-59. sa veb stranice: <http://scindeks-clanci.nb.rs/data/pdf/0031-3807/2007/0031-38070701048B.pdf>
- [3] Dunđerović, R. (2004): Psihologija menadžmenta, Fakultet za Menadžment, Novi Sad
- [4] Honey, P. & Mumford, A. (1983). Using Your Learning Styles. Maidenhead, UK, Peter Honey Publications
- [5] Mykowska, A., Wolski, K. (2010). How to inspire intrinsic motivation. ONLINE EDUCA 16th International Conference on Technology Supported Learning and Training, Berlin, Federal Republic Niemiec