Bringing Creativity into (Language) Education, Knowledge and Business

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Abstract: The aim of this work is to highlight the gamifying of education and ways to gain new knowledge with the help of new techniques, such as coaching, mind maps, neurolinguistic programming. These techniques can enhance the creativity in education and in work-life, they can uncover the tacit knowledge of an individual, lead him to the way of self-knowledge and bring out the creative potential of a person.

The prevailing trend of economic development is a constant change. Future belongs to innovators who continually create new perspectives on already existing things. The question is if the traditional education responds to this trend in a sufficient speed and quality. What kind of knowledge is necessary for a student? How to select quality and quantity of curriculum in a specific field?

Continuously changing environment enhances the ability of a human to learn by himself. The importance of a teacher and the need for him as a person having tacit knowledge is gradually decreasing and it is being replaced by the importance of a teacher as a holder of tacit knowledge who leads his students to understanding the context, to the ability to be creative in the studied subject. The teacher of the future may have the function of a so called coach who leads the students to discover their creative potential rather than to have the function of a fact provider and the so-called informant about the knowledge, as it is mainly the case today. Conditions for this change have to be to be created and it is necessary to create methodology strengthening parallel development of tacit and explicit knowledge and to discover procedures for their strengthening.

Tacit knowledge, defined by the knowledge management as knowledge gained by unconscious learning and remaining hidden from us, unconscious, but despite this fact transmitted – mainly by social contact. There is a need to find an adequate share of tacit and explicit knowledge in educational process.

The example of gamifying is presented in real experiment in the field of language education. Presently, we are teaching managers and their employees English in a particular engineering company. Details of this non-standard course will present a part of this thesis.

Keywords: gamifying education, creativity, knowledge.

1 Introduction

Life is a play. The concept of "learning by playing" was claimed already by J.A. Komenský and although this idea is more than 400 years old, gamification became the prevailing trend in the field of education and business [1]. The extrinsic motivation of students and employees is always only short-term and it vanishes after a while. On the other hand, intrinsic motivation is incredibly strong, can enhance the creativity and independence of the individual. The way of obtaining new knowledge is crucial in this case, because gamification makes the students and employees obtain new knowledge quickly and with amusement. By using the techniques as coaching, mind maps or neuroliguistic programming we can enhance creativity in education and in the private life, discover tacit knowledge of individuals, bring them to the way of self-knowing and unlock the person's creative potential.

The prevailing trend of economic development is a constant change. We can say that knowledge is a fundamental economic source and production instrument. Therefore, the people who dispose of knowledge which can be deepen and shared, are the crucial competitive advantages for every enterprise. Education (Learning) is one of the sources of competitive advantage, but under one basic condition, i.e. the competence, to be quicker to learn and educate faster than our cožmpetitors. Constantly changing environment emphasizes the ability of individual to learn himself. Importance and need of teacher as a holder of explicit knowledge is vanishing and is being replaced by his importance as a holder of tacit knowledge who leads his students to understanding the context, to the ability to be creative in the studied subject. In modern education, it comes to the change in rate of explicit and tacit knowledge.

In this work we will aim the gamification of the education, we will emphasize the importance of tacit knowledge in education and we will explain the concept of so-called bean methodology. We will test this

methodology in the form of language course, teaching the employees of the particular company English in an unusual playful way.

2 Gamification

Wikipedia explains the term gamification as a method using game elements in the non-game contexts. It is used for influencing behavior of the target group to achieve the desired result (obtaining new knowledge, skills, capabilities or putting a project into practice) through positive assessment of specific activities and steps [2]. In principle, we all prefer playing to serious learning. Therefore, the education process that the students understand more as a game can attract their attention and interest them for longer time than the conventional lessons. Gamification is an inclusion of the game elements into the common activities, which motivates people to draw more attention to the given activity. Gamification in education is a return to the concept of J. A. Komenský known as "school by play". [3]. However, it can also be successfully used in business - in the form of games methodology for the purpose of solving problems in the company or increasing the motivation of the employees, efficiency, sales results, etc.

3 Bloom`s taxonomy

Bloom`s taxonomy is a way of distinguishing the fundamental questions within the education system. It is named after Benjamin Bloom, who chaired the committee of educators that devised the taxonomy. Bloom`s taxonomy refers to a classification of the different objectives that educators set for students (learning objectives) [4]. Every course should cover all levels of Bloom`s taxonomy [5]:

- Knowledge (exhibit memory of learned materials by recalling facts, terms, basic concepts and answers)
  Questions like: What does the word "an apple" mean?

- Comprehension (demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating the main ideas)
  Questions like: Compare the sentences "I am playing football now" and "I play football every Sunday".

- Application (using acquired knowledge, solve problems in new situations by applying acquired knowledge, facts, techniques and rules in a different way)
  Questions like: Which grammar tense is best for expressing an activity that happened in the past but lasts up to now, and why?

- Analysis (examine and break information into parts by identifying motives or causes, make inferences and find evidence to support generalizations)
  Questions like: List three ways of expressing future and explain them in details. Provide examples to support your statements.

- Synthesis (compile information together in a different way by combining elements in a new pattern of proposing alternative solutions)
  Questions like: Complete the second sentence so that it has a similar meaning to the first sentence, using the word given. Do not change the word given. You must use between two and five words, including the word given.

- Evaluation (present and defend opinions by making judgements about information, validity of ideas or quality of work based on a set of criteria)
  Questions like: Do you feel that English language students should first study theoretical part of subject (vocabulary, grammar) and then practice speaking or should students practice speaking even if they know about 20 words and 2 grammar tenses?

Gamification joins the lower levels of Bloom's taxonomy with the higher ones, which makes the whole process of studying more interesting and playful.

4 Explicit and tacit knowledge

Human knowledge consists of two basic types of knowledge. Explicit knowledge contains facts, rules and procedures and its owner is fully aware of it. Tacit knowledge helps to its bearers to use their explicit knowledge. It is hidden in their minds. Explicit knowledge has no meaning without relevant tacit knowledge; it remains a collection of memorized pieces of mosaic. Good teaching methodologies must therefore develop and expand both forms of learners' knowledge [6].

The explicit knowledge in the field of teaching foreign languages includes a formalized structure in form of the specified grammar in use, readings, vocabulary, writing and listening. Determining and selecting the useful grammar, sentence-links, routine phrases and vocabulary (in the form of glossary) which is used by the managers in their daily working routine is done by mapping the tacit knowledge of the individual. Tacit knowledge is defined by the knowledge management as knowledge gained by unconscious learning and which remains hidden from us. To adopt the grammar rules, not to be afraid to make mistakes and of speaking even with mistakes, etc. are the examples of the tacit knowledge in language education. To understand explicit knowledge in context is allowed to us just thanks to the tacit knowledge that presents an invisible connection between them, often hidden in the unconsciousness.

As the managers, exhausted at work, are main target group, lack of time is exactly a typical feature for them. And time is the most important and the most precious for them. Thus, the need for language education with minimum time investment and maximum knowledge utilization is derived directly from the practice.
To meet this need is possible, just when selecting the subject matter into the concrete and tailored syllabus, represented, for example, by a glossary with the specific phraseology, which is used in their daily practice, or grammar on the base of the particular situations from their work-life, as well as the most frequent terms and phrases that are used in their daily work.

5 Bean methodology in language teaching

5.1 Updating, speed and entertaining of bean methodology

The name of this methodology was inspired by Mr. Prof. RNDr. Jozef Hvorecký, PhD., who presented a parable between students and bean. When bean grows, it winds around so-called supporting stake, since the student learns to think and learn independently, but with the possibility to lean on his teacher every time he needs it. It comes to change between the rate of explicit and tacit knowledge. The teacher does not act as an informant about the knowledge, provider of the facts who tries to "get into their heads" by using standard methods and which the students memorize consequently. In bean methodology, the teacher teaches the students how to discover their creative potential, to understand correlations and to obtain a creative and playful approach to the studied subject. The main characteristics can be defined by three words: updating, speed and entertaining.

- Updating

He answers following questions: Which knowledge is necessary for the student? How to select quantity and quality of curriculum in a specific field?

Characteristics: The student learns exactly what he needs at the moment. The curriculum he learns is up-to-date (it is related to his current needs – work position, specific talks, professional specification, etc.). He is familiar with vocabulary that corresponds with his way of expression in his mother's tongue; it means it reflects his position in the private and work life, richness and type of his vocabulary. In this way, he can remember the vocabulary of a foreign language more easily, since he uses it frequently also in his mother's tongue; he can remember the phrases that he uses in his common daily practice more easily as well. He builds himself the vocabulary he wants to learn in a foreign language.

- Speed

He answers following questions: Does the education respond to trends of economic development defined by constant change in a sufficient speed and quality?

Characteristics: Student is not limited by the standard syllabus, it means by the standard system of using English course books, in which the taught curriculum (vocabulary, grammar tenses) is ordered into lessons, which the student learns step by step. On contrary, the student can get out of himself the vocabulary and grammar tenses that he currently needs by using the specific techniques (mind maps, neurolinguistic programming). What he learns today, he will use in his work tomorrow.

• Entertaining

He answers following questions: Will the process of teaching be interesting for him? Can he keep his attention and interest during the entire course of study? Will he not stop his studies suddenly (will he not be bored or afraid that he cannot learn the language at all) or will he not start the same language level repeatedly?

Characteristics: Adult students have a negative attitude to the standard study – to the memorizing of the knowledge. Learning by play discloses their creativity. If we enjoy something, by playing the time goes very fast for us and we are concentrated on activity we are doing – it is called "learning by playing". The students do not control the time wishing the lesson finish and they do not deal with other problems.

5.2 Characteristics of bean methodology

Target group
• students of foreing language with the „pre-intermediate" level at least
• the concrete practice has been applied to the adult students (35 years of age on average)

Technical equipment: interactive whiteboard
• sharing the content of the whiteboard via PC net
• notices, vocabulary, grammar, everything that is written on the whiteboard is recorded and exported into the document
• operating with hand gestures: deleting, rolling, zoom
• sophisticated interactive software
• integrated web browser
• the name of the whiteboard type, for example HITACHI Starboard FX TRIO 77s

Soft techniques
• Mind Maps [7]

Mind map is an excellent organizational instrument of our brain.
It is a simply tool for penetrating the information into or out of our brain.
It represents a creative and effective way of taking notes in our mind, which is word for word "mapping" our reflections.
They provide a global view of a subject or field (language education in our case)
They enable to plan educational progress, i.e. we know where we are and where we would like to be.
They are collecting a great deal of data in one place.
It is visually interpreting liaison between the separate information.

Concrete use in bean methodology: Students rarely now what they need to improve, what they exactly need to learn, in which situations they will use the foreign language, etc. For mapping the mentioned, the so called mind maps, drawn/created at the beginning of their study by the students, are used. In this way, they find the answers to the questions such as "What do I actually want? " "What do I need to learn exactly?". Thanks to the student's mind map, the teacher can understand the level of student's knowledge and his aims. A good teacher – coach – has a knowledge of psychology and is able to read the mind map (sometimes even better than student, since from the way of joining the ideas the student's personal characteristics can be obtained).

• Neurolinguistic programming [8]

Practical knowledge and practices of self-improvement,
The nlp techniques in human potential maximization,
Complex of knowledge, skills and habits, under which an individual is responding to inner and outer impulses of the environment, in which he lives,
The recognition of responses to reality, segregation of out-of-date and inefficient reactions from the new ones,
The efficient reactions are helpful in performing the expected results,
The possibility for personality change,
Analyzing the successful models (of people) „learning by success of the best" (models of people, who have learnt a foreign language in very fast and good manner, elaborating their ways and forms of education).

Concrete use in bean methodology: To make the change in our lives is to learn to think and handle in a new way. The quickest way to learn this is to get programmed. Learning foreign languages means the specific work with our brain. Students change their way of thinking, get programmed consciously, learn to think the way that enables them to reach the desires knowledge level. We use various techniques, one of them is called "learning from the best". It is a summary of tips and tricks how the human brain can remember as many new words as

possible, which tricks can be used to form the easily memorable sentences of them, using of mnemonic aids, etc. An important representative in this field is Libor Činka [9], psychotherapist and specialist in super memory, quick reading and motivation techniques.

5.3 Process of teaching using bean methodology

- Students have no course books and do not take down the notes (they are allowed to do that but it is not necessary)
- The lesson takes the form of free discussion on various topics, eventually the teacher can help the students to state the topic (based on the entry soft techniques, the teacher gets the overview of the topics necessary for the students)
- New vocabulary, phrases, sentence-links and grammar tenses are written on the whiteboard
- New vocabulary comes directly from the students. When the problem with a new word or phrase occurs, the teacher writes it on the whiteboard.
- New grammar – the concrete grammar tense is explained and written on the whiteboard as well. The need to explain the grammar tense comes directly from the students.
- Only the subject matter needed for the students at the moment is explained
- The vocabulary only consists of the words the students cannot express themselves
- Consequently, all the new information is exported from the whiteboard into PC document and sent to the students via email (as if they were taking down notes in the lesson)
- Each lesson: the teacher processes the subject matter from each lesson carefully, for the strategy of teaching is based on repeating the knowledge from the previous lessons, approximately 50% of time should be devoted to the revision and the rest of time to the new topics
- Every month: tutor processes the outputs from each lesson with the software into the form of course book, it means he organizes vocabulary, grammar, eventually he adds new examples for simple understanding and sends them to the students (the difference between notes taken down from each lesson and the monthly outputs can be seen in the form of the monthly outputs which are organized into individual lessons and supplemented by teacher, the final result is the course book)
- Every three months: the teacher processes the materials book from the previous three study months into the form of a course book. This course book contains the well-organized vocabulary, grammar, grammar explanation, examples, stories, additional exercises, tasks, links to listening exercises in internet to the given topics, etc.
- The result of the described is a complete course book including exactly the subject matter that was difficult for the students to understand and which they need for completion of their knowledge to move forwards
- By continual revision of previous lessons (revision of the vocabulary and grammar in sentences, mostly in the form of questions in the way that tutor gives the questions to the students and they answer) the students get to the point, that by the time they get the printed course book, they use it more or less only for revision and for supplementing the knowledge with some other forms of exercises (you tube videos, online articles, on-line games, etc.)

6 Conclusion

Using the positive psychology in education and the work process can lead to the way of self-knowing and discover the person's creative potential. Education or work using game-form seems like an amusement; however, it starts the inner motivation of students and employees, who feel they want to study/work and reach their goals simultaneously. Employees in the companies can be more open and adaptable to new ideas and by discovering their personal potential they obtain added value not only for their work but also for their personal life. The employees or students with intrinsic motivation reach their goals more quickly and possess competitive advantage.

A bean technology represents the gamification in language education by using the interactive whiteboard. It comes to the change of explicit and tacit knowledge. The student learn to learn from themselves, they think and create combinations (with restricted vocabulary they can make many sentences), they are not afraid to speak, even with mistakes, because they understand that their mistakes are the base for the content of the next lesson. Amusing and creative character of lessons is based also on the story-acting, when the students are not static, but they act in skits, they imagine real situations from the work environment. Gamification joins the lower levels of Bloom's taxonomy with the higher ones, which makes the whole process of studying more interesting and playful.

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