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On a Flow-based pedagogical model

The emergence of experience and creativity in education

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Abstract
Taking into account the learning habits of the new generations, it can be said that educators need to create a new, interactive learning environment so that students enjoy lessons and their attention remain constant throughout the lessons. In order to realize that, first we need to raise the question if we can give experience-based, competence-improving, attention-conscious, problem-solving, and creative lessons. In this study, it is not my intention to examine digital education or to clash the psychological and pedagogical analytical views of flow. Instead, based on objective research results, I am looking for answers to the following questions: (1) How do experience and creativity come to the fore in learning and teaching habits? (2) How can the focus be shifted from traditional education to experiential teaching and learning, using the flow state? (3) To solve the latter issue, I developed the flow-based pedagogical model, which leads to the final question:[1] (4) What is the meaning of the model and how can it be integrated into the education portfolio?
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The basics of change in education

One possible way to change education is through the emergence of experiential pedagogy. Experiential pedagogy means nothing more than teaching through direct experience and active education (Farkas, 2017). Developing soft skills or personal skills is one of the goals of this method since they further aid in improving self-knowledge, self-assessment, and individual responsibility. Finally, experiential pedagogy can develop collaboration, conflict management, leadership skills, and creativity.

The main character of the learning process is the student; therefore, the learning environment must support their conscious role, and autonomy, encourage them to learn about their learning style and develop their own learning strategies. However,

1 The elements of my flow-based pedagogical model include creativity, flexible thinking, playfulness, humour, and the inclusion of brainstorming in education. Using these elements by educators, students can reach the flow channel (Dominek 2020; Dominek 2021a).

Knutson (2003) points out that during experiential learning, not only do students need to learn new skills, but educators also require new roles and different lesson organization techniques. "Learning is a longer-term, adaptive change that takes place in a system" (Nahalka 2007, 9). This definition contains three elements: systematicity, long-term change, and adaptability.

Gaskó (2007) described her information processing model, in which, in her opinion, the key elements are attention and memory (30). She is convinced that if the student pays attention to the instructor, he/she selects the elements that are important to him/her and easily notes them during the acquisition of knowledge. However, it is important to note here that the association of emotions triggers attention (e.g. boring/interesting). According to Kolb (1984), the principle of experiential learning is to involve the entire student's personality in the learning process. It is fulfilled if:

- the learning objective is relevant to the learners;
- it is possible to implement multipath solutions based on the students' different interests and abilities;
- creativity, initiative, and autonomy play a key role in the learning process, and
- the learners have the opportunity to collaborate with others, and to share knowledge as a member of a supportive community.

Considering digital education, the Digital Competence Framework (DigCompEdu) is divided into six dimensions based on the requirements for skills and competencies that support the digital transformation of education and learning. In these competence areas are included the levels of proficiency to be achieved and the list of relevant knowledge, skills, and attitudes. The mention of twenty-first-century technology is irrelevant if the appropriate digital competence is missing in education. In my opinion, it is important to exploit the potential for digital competence development at all levels of education. Due to the epidemic caused by COVID-19, the effectiveness of distance learning introduced in higher education was partly influenced by educators' proficiency in digital solutions and the effectiveness of flexible adaptation to the digital environment. Digital literacy is required to develop digital skills and competencies, including the ability to filter out fake news and misleading information, a high level of computer education, and thorough knowledge and understanding of artificial intelligence. If we want to implement experiential pedagogy in the digital space, it should be emphasized that the greatest benefits of digital content are edibility and adaptability. These provide an opportunity to shape digital content so that they best serve the given objectives within the framework of the chosen methodological solution. It is important that the digital curriculum is varied, interesting, and motivating.

Based on the above, the role of the educator is transformed into a helping, supporting, and moderating person, and, in this environment, students neglect their usual roles and take on new ones, such as the technique of independent thinking, negotiation, reasoning, and persuasion. Where experiential pedagogy is based on FLOW methodology, in addition to experience, the liberation of consciousness, joyful challenge, and joyful development also appear. An interesting and motivating curriculum supposes creative content.

Creativity

Guilford introduced and defined the concept of creativity in the 1950s. According to his theories, creativity can be measured by the tests of originality, fluency, flexibility, and the factors of paraphrasing, elaboration, and evaluation (Landau 1974).

Guilford also pointed out the differences between creativity and intelligence. He described intelligence as convergent. In his opinion, the intelligence tests of that time were outdated, and he started the process whereby more emphasis should be placed on individual factors in intelligence tests. The following factors played the most significant role in determining the components of creativity: fluency (ease), flexibility, originality, sensitivity, elaboration, and redefinition (Guilford 1950).

According to Mihály Csíkszentmihályi, "creativity is a process through which the symbolic domain in culture changes. New songs, new ideas, new machines – this is what creativity is all about" (Csíkszentmihályi 2008, 14). Creativity is also influenced by thinking skills. Among the characteristics of creativity, I would also mention the experimental, somewhat forgetful, and busy students' curiosity and their ideas – without tasks being assigned (Dominek 2021c).

The meaning of creativity is used in many senses (e.g. to form, to produce), but psychology means it as an internal process based on curiosity. Creativity is an inherent part of social existence and its imprint, rather than a solitary activity. This is accompanied by a number of influencing circumstances, including the individual's personality traits, motivation, and social environment (Buda–Péter–Szarka 2014). Today, about eighty percent of productivity growth in developed countries is due to some form of implemented innovative ideas. Creativity is of crucial importance in increasing competitiveness, improving export capacity, maintaining employment, and raising the level of services, in other words, enhancing social welfare.

To sum up, based on the definitions and descriptions above, it can be concluded that creativity is a process, in which we create a novel, original and usable outcome. The main point is, therefore, in addition to ideas, to train people capable of producing ideas, and to increase and develop the creative skills of human resources. My questions are thus the following:

1. Do we have to accept that the need for experience-based education is strongly present in new generations' education, and should we acknowledge that if we do not consciously take advantage of these flow-based positives, these generations will be even more "bored" of the education system? Is it possible to intervene in this educational process, act against it, or change it?

2. Shall we rather think about the dual dynamics and relationship between traditional and experience-based education? How do they affect each other, and what phase changes can they have?

3. How does Martin Seligman's PERMA model, Csíkszentmihályi Mihály's Flow model, or the cybernetic model described by Andreas Héjj influence the experience in education?

Maslow (1954) was the first to emphasise the need to create positive psychology, according to whom, the study of "crips" results in "cripsy psychology". Martin Seligman and Mihály Csíkszetmihályi laid the foundations of today's trend. They believe that the psychology of positive human activity will find scientific understanding during its development (Seligman–Csíkszentmihályi 2000). The important mission of positive psychology is, therefore, to shift the focus of psychology from the observation of dysfunctions and pathological phenomena to the exploration and exploitation of human strengths and virtues thus bringing the concept of well-being into the scientific discourse. Positive psychology therefore not only strives to correct the bad things in life but also attempts to create and preserve positive things. The movement, therefore, considers the attitudes determined by a person's emotions to be the basic starting point of learning. The representatives of the movement emphasize (Seligman–Csíkszentmihályi 2000, Héjj 2013) that every learning situation has some kind of experience or emotion. Positive psychology can also appear in education since its use can increase learning performance. Based on the research of Clifton and Rath (2005), it can be established that students who received praise from their teacher in class improved their results by 71%, those who were criticized, by only 10%, and those who received no feedback, by only 5%. This study illustrates that a positive attitude is one of the most effective ways to promote development. For students to be able to master their studies properly, it is also important to include a supportive environment and good experiences in education because they help the development of individuals and at the same time the development of positive qualities (Oláh 2012). One of the biggest challenges is getting students' attention and keeping them motivated. This can only be achieved by having the educational activities used by the educator (Dominek, 2021b).

In 2011, Martin Seligman published the so-called PERMA model which is an acronym made up of English initials and is a model of happiness based on which pedagogical or developmental programs can be developed. According to Seligman, the components of happiness are pleasures caused by experiences (Pleasure), immersion in an activity, i.e. flow (Engagement), social relationships (Relationships), the meaning of life, i.e. the mission (Meaning), and successes and achievements (Accomplishments). Positive education and the pedagogy movement voice that schools and teachers representing positive pedagogy are the basis for creating well-being in different cultures.

According to the father of the "Flow theory", Mihály Csíkszentmihályi (2012), new psychology using scientific methods is needed to focus people's attention on what it means to be human. He considers the power of joy important, its conscious experience in every moment. In his opinion, the primary motivation is flow, and this is what can have a positive effect on school performance. Flow (Figure 1) refers to a state in which someone is preoccupied with what he/she is doing. The distractions of the outside world disappear, and time flies unnoticed.

Figure 1: Flow

source: URL: https://en.wikipedia.org/wiki/Mihaly_Csikszentmihalyi

We start from the theory of Rhodes (1961) when we claim that the creation of flow can be derived from the theory of creativity. According to Rhodes, based on his extensive research, the definitions of creativity point to four areas: Personality, Process, Press, and Product. So, creativity requires a creative person, the creative process, external environmental influences, and the result (Mező 2015, 12). According to Csíkszentmihályi, flow can only be achieved if achieving such challenges gives rise to new desires. There are many different ways to achieve mind control, but they all have one thing in common: allow the joy of discovery. In this way, students' abilities to perform increase, and they can experience a more complex state of consciousness, and reach a more advanced stage of their Self, which is the key to the flow experience. It differs from simple pleasure because simple pleasure comes from the fact that one of our expectations has been satisfied. Real pleasure is different. According to Csíkszentmihályi, this is when we can exceed expectations, and we can experience something that we did not even expect before (Dominek 2020). Experiencing the flow experience can only unfold in an internally controlled personality in situations in which the possibility of self-direction is given. To achieve this state of consciousness, different components must come together:

- It occurs when we carry out regulated and purposeful activities;
- We must be able to focus on what we are doing;
- We must act without effort, with commitment;
- At the same time, pleasurable experiences should promote the achievement of control over one's own actions;
- As a result of the perfect experience, the preoccupation with existence ceases;
- One of the most characteristic features of a perfect experience is that time does not pass as usual.

According to Andreas Héjj's (2013) cybernetic model, students' sense of security increases as emotional support rises, which enhances the desire to approach the new curriculum, attention, and experimentation. All of this has a favourable

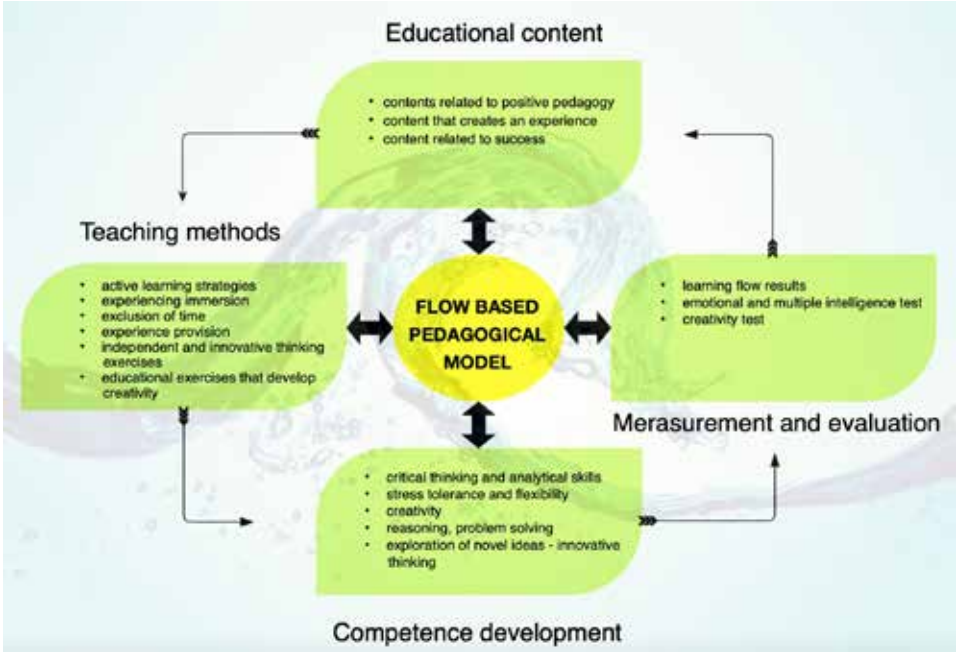
effect on the occurrence of success, which the student records as a result of their actions, so their competence is strengthened. The practices of positive education programs include, for example, writing a gratitude journal, empathy training, identifying strengths, and strengthening critical thinking. In education, creativity and opportunities for students to speak are still very limited and the role of the game can hardly be found in lessons. If the flow experience can be implemented in education, the students' states of mind can be developed (Dominek 2021b).

Taking into account the questions and theoretical insights presented above, the theoretical model I imagined and developed attempts to follow, and even consciously try to control the emergence of experience-based education with the possibility of using flow.

The Flow-based pedagogical model

Proposal for a new educational model: I developed the flow-based pedagogical model for the sake of an innovative educational model. I consider it important that this system is able to plan educational content, apply educational methods, develop competencies, and measure and evaluate this process (Figure 2).

Figure 2: Flow-based pedagogical model[2]



2 Dominek Dalma Lilla's own model

From the figure above, it can be seen that, based on the model, the curriculum must be developed with a positive approach in terms of content, which is the trigger for experiences, novelty, and excitement. If we associate the educational contents with them, based on the above, we can also stimulate the spirit of entrepreneurship, with which attention and motivation can be achieved. Therefore, with the help of these, the educator becomes capable of competence development. This can be achieved if the student develops a sense of security and during the prompting to action, as a result of the discovery and experience that comes from within, they are interactively involved in the playful environment created in the lesson. With the help of these methods, various competencies can be developed, for example, critical thinking and reasoning techniques (see Figure 2). A model is valuable, in my opinion, if it provides an opportunity to measure and evaluate. For this reason, Figure 2 contains all the test systems with which the educators can measure the effectiveness of their lessons during the application of the model.

Area of application: In my research conducted in 2020 and 2021(Dominek 2020, Dominek 2021a) I tried this model in the field of museum education. The museum is a learning arena in addition to being one of the most complex public collections, which is nothing more than a public cultural and scientific institution (Dominek, 2011, Dominek, 2020). Its task is the continuous collection, registration, preservation, and restoration of specified materials of cultural assets, scientific processing, and publication, presentation at exhibitions, and in other ways.

A museum is also an important place for society hence communication, as a means of knowledge exchange, is an essential pillar of museum learning. According to the "contextual model" of museum learning, the success of a visit depends on personal motives, the social environment, and the physical context (Falk–Dierking, 1997). Falk (2009) later integrates the contextual model into his model for the museum visit experience, which focuses on the internal motivation that causes the visit. According to his theory, visiting a museum as an experience influences the visitor's identity. Looking at the international literature, in the study published in 2005, Tal, Tali, et. al discuss the role of science centres and natural history museums. The study focuses on the role and observations of teachers accompanying school groups during museum visits with their class, following the pattern of other similar research. In museum pedagogy practice, which forms the backbone of museum experiential pedagogy, there are methods with which educational activities can be carried out in the museum space. It is also worth mentioning the processing of worksheets, which can be considered thematic, then, children or adult guides of exhibitions (Vásárhelyi T.–Vásárhelyi K. 2009), and, finally, role-playing, or situational play as it is called otherwise. K. Allison Wickens's study (2012) showed that if students listen to a story, examine objects and take part in activities in the museum with the educator's guidance, the students can better relate the actions and characters to the authentic objects and experiences in the museum, and the experience is ensured. The success of the game depends on the activity of the participants. Twenty-first-century museums are already introducing the use of digital tools. One of these supporting tools is, for example, augmented reality (AR), when some digital content is connected to a real object that the camera recogniz-

es. A classic example is when the camera shows the original design and operation of an object, and that to what extent this has changed over time.

Gaining experience is one of the primary distinguishing features of museum pedagogic sessions. As a result of the experience, the group relaxes, and the visitor can experience a different kind of world during the gaming experience (Dominek, 2011). Museum pedagogy is a special field of educational science, we can also mention it as the outdoor trend of experiential pedagogy (Hahn, 1987) hence education takes place outside an educational institution.

Summary

I strongly believe that if – based on the flow-based experiential pedagogic education – I proved that museum pedagogy (either connected to classes or guided tours) can bring visitors into the flow channel with the help of the museum educator, this model could also be implemented in education. By applying the Flow-based pedagogical model in education, students would receive experience-based education, which is important because in this type of class the educator has the opportunity to develop soft skills, including creativity, communication, conflict management, and sensitization.

The usefulness of the creative approach, the use of various problem-solving methods, and the creation and implementation of workable ideas are essential areas of creativity. If we do not recognize our own autonomy and opportunities for self-expression, then our creativity is lost. If education can awaken "children's natural curiosity", it would channel its inner drive in a self-motivated, courageous, freely interpreted manner, combining several forms of self-expression. The students would realize their ideas and experiences; they would use their ability to think differently and would use their creativity. The most important thing is that students dare to embark on new ways of thinking in education, take on their innovative ideas, learn from others, and inspire others. Students shall be able to flexibly adapt to uncertain situations and have the tools to see through complex problems.

I consider it important to emphasize that the field of education urgently needs the introduction of the flow-based pedagogical model and its experience-based teaching methodology. Achieving cognitive flexibility among students is an innovative opportunity, with the help of which soft skills can be developed. The use and incorporation of the so-called flow phenomenon into the lecturer's presentation style and the teaching framework can be the key to enhancing experiences, thereby achieving the development of soft skills. In my opinion, the task of educators is to prepare the students to handle and solve problems and conflicts by developing the necessary communication skills, showing the tools of creativity, and striving to develop a creative way of thinking. As for other tasks, it is to ensure that the students find joy in the challenges, and the implementation of new solutions, provide factual and applicable knowledge and techniques, and, finally, the educators should encourage innovative actions, recognizing and avoiding activities involving unnecessary stress.

As long as education predominantly focuses on teaching the answers to scientifically and professionally clarified questions, instead of making the students investigate and search for problems, problem-solving and speaking skills cannot be developed (Dominek 2021b). As a consequence, sadly and supposedly, it will face a generation that is unable to think independently and discover its creativity.

References

Buda Mariann – Péter-Szarka Szilvia (2014): *Kreativitás és azon túl... A kreatív klíma mint lehetőség a 21. századi iskola számára*. Iskolakultúra, 2014, 14/3, 33–40.p.

Clifton, Don, Rath, Tom (2005): *'Every moment matters', How full is your bucket? Positive strategies for work and life*. Gallup Press, New York.

Csíkszentmihályi Mihály (2008): *Kreativitás. A flow és a felfedezés, avagy a találékonyság pszichológiája*. Akadémiai Kiadó, Budapest.

Csíkszentmihályi Mihály (2012). *A megszólított pszichológia*. Magyar Pszichológiai Szemle 2012, 67/1, 47–56. p.

Dominek Dalma Lilla (2021a): *Élményalapú környezeti nevelés a természettudományi múzeumokban*. Szegedi Egyetemi Kiadó – Belvedere Meridionale, Szeged.

Dominek Dalma Lilla (2021b): *A FLOW, mint a pozitív pszichológia jelenléte az oktatásban*. Eruditio - Educatio, 16/4, 72–82. p.

Dominek Dalma Lilla (2021c): *Creativity in higher education through the flow channel*. Belvedere Meridionale 33/4, 5–12. p.

Dominek Dalma Lilla (2020): *Flow, avagy játékos kommunikáció a múzeumokban*. Szegedi Egyetemi Kiadó – Belvedere Meridionale, Szeged.

Dominek Dalma Lilla (2017): Élményalapú tárlatvezetés. In *Múzeumandragógia és közösségszolgálat. Az V. Országos Múzeumandragógiai Konferencia válogatott anyaga*. Szerk. Kurta Mihály, Veres Gábor, Verók Attila. Eger: Eszterházy Károly Egyetem, Pulszky Társaság, Magyar Múzeumi Egyesület múzeumandragógiai tagozata, 22–36. p.

Dominek Dalma Lilla (2011): *A Magyar- és a Bakonyi Természettudományi Múzeum. In: Társadalmi nem és oktatás*. Szerk. Kéri Katalin, Pécs.

Falk, John H. – Dierking, Lynn D. (1997): *The museum experience*. Washington DC.CA.

Falk, John H. (2009): *Identity and the Museum Visitor Experience*. LeftCoast Press, Walnut Creek, CA.

Farkas Éva (2017): *Tanulási eredmény alapú tanterv- és tantárgyfejlesztés a felsőoktatásban*. Szegedi Egyetemi Kiadó Juhász Gyula Felsőoktatási Kiadó.

Gaskó Krisztina (2007). A tanulás pszichológiai értelmezése. In: *Hatékony tanulás. A gyakorlati pedagógia néhány alapkérdése*. Szerk. Nahalka István. Budapest, 20–41. p. Bölcsészkonzorcium.

Guilford, Joy Poul (1950): *Creativity*. American Psychologist, 5/9, 444–454. p.

Gyarmathy Éva (2011): Kreativitás és beilleszkedési zavarok. In *A kreativitás többszempontú vizsgálata*. Szerk. Münnich Ákos. Debreceni Egyetem, Didakt Kiadó, Debrecen. 13–45. p.

Hahn, Kurt (1987): *Erinnerungen, Gedanken, Aufforderungen*. (mit wichtigen Beiträgen von Werner Esser, Erich E. Geißler, Hildegard Hamm-Brücher, Golo Mann). Hrsg. Jörg Ziegenspeck. Neubauer, Lüneburg.

Héjj Andreas (2013): Mikor figyel a diák? Egy kibernetikai modell és a valóság. In *Iskola a társadalmi térben és időben*. I. kötet. Szerk. Andl Hekga, Molnár-Kovács Zsófia, Pécs, 11–30. p.

K. Allison Wickens (2012): Museums and Community. *Journal of Museum Education* 37.

Kolb, David A. (1984). *Experiential Learning*, Englewood Cliffs, NJ.: Prentice Hall.

Knutson, Sonja (2003). *Experiential learning in second-language Ccassrooms*. TESL Canada Journal, 20/2, 52–64. p.

Landau, Erika (1974): *A kreativitás pszichológiája*. Tankönyvkiadó, Budapest.

Maslow, Abraham (1954). *Motivation and Personality*. New York: Harper.

Mező Katalin (2015): *Kreativitás és élménypedagógia*. Debrecen: Kocka Kör.

Nahalka István (2007): A tanulás pedagógiai értelmezése. In *Hatékony tanulás. A gyakorlati pedagógia néhány alapkérdése*. Szerk. Nahalka István. Budapest, 9–20. p.

Oláh Attila (2012): *A pozitív pszichológia világa*. Budapest, Akadémiai Kiadó.

Rhodes, Martin. (1961). *"An analysis of creativity"*. Phi Delta Kappan 42/7, 305–311. p.

Seligman, Martin E. P. – Csíkszentmihályi Mihály (2000): „Positive Psychology: An Introduction". *American Psychologist*. 55/1, 5–14. p.

Seligman, Martin E. P. (2011): *Flourish: A visionary new understanding of happiness and well-being*. Free Press.

Tal, Tali et al. (2005): Guided school visits to natural history museums in Israel: Teachers' roles. In *Science Education* 89, 920–935. p.

Vásárhelyi Tamás, Vásárhelyi Krisztina (2009): Új műfaj a múzeumpedagógiában: családi felfedezőfüzet. In *Új Pedagógiai Szemle* 5-6, 191–197. p.

URL: https://en.wikipedia.org/wiki/Mihaly_Csikszentmihalyi