Dominek, Dalma Lilla PhD

dominek.dalma.lilla@uni-nke.hu
senior lecturer (Department of Social Communication, University of Public Service)

Creativity in higher education through the flow channel

Abstract

In our study, we present the importance of creativity and its possible rebuilding into education. We also consider it important to examine Group Flow, because in education, group synchronicity and its combined use in enhancing creativity is important for students entering the labour market to be aware of raising and maintaining their performance at a higher level. To work in a group means to achieve goals and work together, and that can only be achieved through creativity. It can be shown that if someone is creative in the group, it spreads to the other members. However, a whole new creative teaching methodology is needed that can be implemented in a new digital technology age. Introducing or rebuilding creativity into education is an exciting area for the above.

Keywords

positive psychology, teaching methodology, student, digital-traditional – hybrid education

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Introduction

Compared to other European countries, it should be emphasized that Hungarians can be said to be extremely creative people, but this creativity is not common in terms of population. Education focuses on raising general intellectuality, but it kills creativity. In the lessons, it is important that students do not ask questions, return the material given by the teacher, either verbatim or on a content level. However, they cannot add new ones, supplement them or think about them. You just have to learn because the instructor says. However, in order for the student to have knowledge transfer and deepen, flow must be used, the focal point and the ability to concentrate must be seen at a high level. We often hear that a break after 1.5 hours is enough, but not a break of 5 minutes every 25 minutes is needed to keep the attention sustainable. Our research shows that attention cannot be sustained in long run.

The usefulness of a creative approach, the use of various problem-solving methods, and the creation and implementation of workable ideas is one of the essential areas in creativity. If we do not recognize our own autonomy and opportunities for self-expression, our creativity is lost. If education can awaken "childish curiosity" then it can channel its inner driving force, implement its ideas, live and use the ability to think differently, its creativity in a self-motivated, bold, free-interpretation way, combining several forms of self-expression. The most important thing is for students to dare to embark on new ways of thinking, to take on innovative ideas, to draw from others and to inspire others. Being able to adapt flexibly to uncertain situations, having tools to see through complex problems and being prepared for the challenges of the 21st century are important, too.

Research has shown that students in higher education today do not have creative solutions. They do not seek independent paths and are stuck in problems. For this reason, one of the challenges of the future is to develop a creative flow-type educational methodology based on creative methodology, problem-solving techniques, domestic and international good practices, which develops its own creative mode of operation.

The main aim of the study is to suggest, based on the research experience, where education should develop, what elements are needed for students to leave the classroom with experiences, and thus increase their creativity.

In our opinion, creativity can be built on experience, that is, it is part of experiential pedagogy, but by experiential pedagogy, we mean that the means of our education is the personally experienced experience itself. Positive psychology emphasises the pleasure experienced in learning and development, self-esteem, the perception of success as a reward, the importance of making an effort to improve and the importance of curiosity (Pléh 2004, 2012; Seligman 2008; 2011).

Building on this hypothesis, in our research, which took place at a university in Hungary, we asked students if they met with creative instructors, what students mean by creativity. If we assume that creativity can be enhanced or rebuilt through the methodology of experiential pedagogy and hybrid education, then we can assume that the presence of experiential flow education also suggests students 'creativity. Your own experience is always better captured! Children need to see for themselves the significance of one thing at a time, Dewey thinks.

The research purpose of the questionnaires with students is to

- examine students' opinions about creativity and assess how creative students consider teachers to be.
- show which way of education they can imagine the higher education of the future and whether this requires creativity.

The empirical study was carried out in Hungary during a questionnaire survey at the University of Public Service.

Theoretical aspects

Our research was based on flow measurement. The flow measurement was developed by Professor Mihály Csíkszentmihályi of Hungarian origin, and so far only a few people in Hungary have used this measurement in connection with the measurement of the degree of experience. In our accelerated world, changed learning and teaching habits must be applied. Based on these, interactive, creative and experience-based education should be pursued (Csajka – Csimáné 2019; Barnucz – Fónai 2020) in order for students to experience the FLOW experience in a lesson, but for this in the XXI. on the ground of the skills of the 20th century, it is already set as a basic condition to teach using the flow channel (Csíkszentmihályi 2010). However, based on the above, students are expected to have a constant focus during classes, an appropriate focus, and a high level of creativity. They must all be present in the class at the same time, in a complex way, so that time is not taken into account. A XXI. century already expects top performance from students. In our opinion, the experiential flow state is the most adaptive way to create a higher level of life, which is why it is important to implement an experiential-based teaching methodology in education that focuses on students 'creativity. According to Csíkszentmihályi, the experiencer of the "stream" is so immersed in his activities, he excludes disturbing factors, he forgets the passage of time. So, in the present case the participation in education becomes easy and spontaneous, thus providing the joy of a "perfect experience". That is why he calls this experience "flow". It is a joyful state of deep participation and absorption that individuals report when faces a challenging activity and perceived with the right skills to cope with those challenges. Flow is described as an optimal experience in which people are deeply motivated by the persistence of their activities. Research shows that flow experiences can have far-reaching consequences in supporting individuals 'growth, contributing to both personal well-being and full functioning in everyday life. Based on his research, Csíkszentmihályi states that when the level of abilities and possibilities is balanced, and thus the level of boredom and anxiety decreases to a value around the minimum, the personality develops the most as the consciousness becomes more complex. The measurability of this experience was made possible by the application of the "flow test,"

which also provided for the determination of the level of boredom and anxiety factors on a scale ranging from 1.00 to 5.00. In the present research, we used a version of this, the elements of which were placed in the questionnaire.

In our opinion, the task of the instructor is to prepare the student to deal with the problems and conflicts to be solved. Students develop the necessary communication skills for this. They show the toolbox of creativity, strive to develop a creative mindset in students. So that the student finds joy in the challenges, in the implementation of new solutions, and provides factual and applicable knowledge and techniques. It encourages innovative action, recognition and avoidance of unnecessary workload activities.

We start from Rhodes 'theory when we say that the creation of flow can be deduced from the theory of creativity. According to Rhodes, after his many researches, the definitions of creativity point to four areas, which are the following: Personality, Process, Press, Product, so creativity requires the creative person, the process of creation, external environmental impacts and the result. According to Csíkszentmihályi, the essence of the theory of flow is that creativity can be developed, that in his book FLOW the author writes that when people experience a high degree of joy, their concentration is focused on the challenging task and then they experience the perfect experience. Csíkszentmihályi's research also reveals that the average person experiences the flow most of the time during work, because work can become a real creative activity that provides an experience for individuals. Experiential pedagogy occurs when we are able to go beyond the expected and have an experience that we did not expect before (Dominek 2018; Barnucz – Fónai 2020; Dominek 2021a). However, the work is, in our view, consistent with the work done by students during their university years. Experiences are experiencing emotions, desires, trying. During the student years, this means diversity, discovering novelty, making a decision, immersing oneself in a topic. Closely related to experiential pedagogy is the concept of creativity, which, according to the authors of Digital Pedagogy 2.0, is a set of innate and acquired qualities and abilities that give us the opportunity and urge to invent original and preferably purposeful things. In her pedagogical approach to experiential pedagogy, Petra Földes defined experience- or activity-centred learning organization as the rediscovery of natural forms of human learning and their adaptation to organized school frameworks. Finally, it is important to mention the concept of edutainment, which in the Anglo-American pedagogical literature is most generally entertainment for learning purposes, which primarily seeks to translate the knowledge to be acquired into a familiar form of entertainment (television, computer and video games, movies, music, websites, multimedia applications, software, etc.).

Jean Heutte (Heutte 2016) and co-authors seek to identify factors that can be associated with an optimal learning environment, so in their view, an optimal learning environment is an environment that promotes the creation of a flow experience in learners. If we, as students, look for challenges and present goals to ourselves, we can experience the moment of experience, that is, the flow, as achieving such a goal breeds new desires. There is a wide variety of ways to achieve consciousness control, experience-based research reports, but they have one thing in common to allow for the joy of discovery. Thus, your performance increases and you can experience a more complex state of consciousness, a more advanced stage of your Self, which lies in development, the key to the flow experience. The emergence of educational flow can be interpreted primarily in connection with the so-called "social flow" phenomenon. In his research

series, Tímea Magyaródi (Magyaródi 2016) stated that the quality of the flow experience is more intense in a social situation than during individual task performance: for example, the synchronization of the flow experience of two people in action can be observed during a joint task solution. According to Magyaródi, the flow experience experienced at that time is supported by the so-called flow synchronization components, which are based on the peculiarities of the interaction in parallel with the experience of the flow experience. According to the research, experiencing and practicing the flow in social, cooperative activities can contribute to the satisfaction of basic human needs in addition to performing intrinsic motivated action. Based on this, it can be stated that with the help of social or otherwise called group flow, the presence of flow can be achieved in education as well, and with the help of this, creativity can also be increased. Thus, group flow experience can play a documented role in increasing a team's efficiency, productivity, performance, and capacity, as well as increasing their creativity.

Research sample and method

Questionnaires were received by a total of students studying at the university, so we sent them out to a total of N=5,760 students, of whom n=702 answered our questions of the academic year 2021/2022. From the questionnaire in this study, we present the results that addressed issues of creativity. Accordingly, the first question was about how creative you consider educators. Respondents rated their answers on a three-point scale as saying yes, maybe, or no. Of the respondents, 40.5% marked yes, while perhaps 45.3% voted. If we compare these two values with the gender ratio of 14.2%, it can be said that a higher proportion of students encounter a teacher who can be considered creative in the classroom than a teacher working with a frontal, traditional methodology (Table 1).

Table 1: Do you find the trainers creative?

		Frequency	Valid Percent
Valid	yes	284	40,5
	no	100	14,2
	maybe	318	45,3
	Total	702	100,0

Source: own data collection, n=702

This may also indicate that educators are trying to use an interactive type of methodology other than traditional teaching. Unlike in previous years, frontal education has undergone a transformation, and it is thanks to this transformation that education in today's higher education is more interactive.

The other question, which is closely related to the previous one, is what they mean by creativity. We asked you to write your opinion briefly on this. We also quote the opinions of a few students in our study:

"Maintaining interest, recognizing new approaches and connections"

"For me, having a teacher can make a lesson more interesting and colourful by keeping students' attention."

"You can make the curriculum illustrative, interesting - either with real-life examples, video materials or case studies that are not a common tool in frontal education"

It can also be concluded from the above quotations that students consider holding new, non-traditional, interesting lessons during their creativity to be the creativity of the teacher. This also presupposes the establishment of a kind of innovative, new methodology.

Based on previous assumptions about the difference between the right and left hemispheres, we also asked the question of which thumb is above when you clasp your hands. Respondents could choose from the left and right answers. 397 people, or 56.6%, voted for the left election, while 305 students, or 43.4%, voted for the right. Based on previous articles referring to creativity, including the left and right hemispheres of the brain, according to the game, nearly 60% of students at the University of Public Service can be considered creative (Table 2).

Table 2: If you clasp your two hands together, which thumb is on top?

		Frequency	Valid Percent
Valid	left	397	56,6
	right	305	43,4
	Total	702	100,0

Source: own data collection, n=702

This is why educators are expected to be creative in class and like lessons other than this type of traditional teaching.

To the question of what type of education they would like in the future, we received the following answer: hybrid. Among the response options, we raised the possibility of digital - online, hybrid - presence and online and traditional education - presence triple scale. 217 people, i.e. 30.9%, in addition to digital, i.e. online, 192 people, i.e. 27.4%, in addition to traditional, i.e. attendance education, and 293 people, i.e. 41,7% in addition to hybrid (Table 3).

Table 3: Which education do you prefer in terms of lessons?

		Frequency	Valid Percent
Valid	digital – online	217	30,9
	traditional education – presence	192	27,4
	hybrid – presence and online	293	41,7
	Total	702	100,0

Source: own data collection, n=702

This also means that if we are thinking about hybrid education, we need to develop a new curriculum of which lessons can be held online and which should be implemented in attendance education. It is certain that solving this will require a high degree of creativity, which can be developed by knowing and mastering the flow.

Conclusion

The usefulness of a creative approach, the use of various problem-solving methods, and the creation and implementation of workable ideas is one of the essential areas in creativity. If we do not recognize our own autonomy and opportunities for self-expression, our creativity is lost. If education is able to awaken "childish curiosity" then the student can channel his / her inner driving force, implement his / her ideas, live and use the ability to think differently, his / her creativity, self-motivated, boldly, freely interpreting, combining several forms of self-expression. The key is for the student to dare to embark on new ways of thinking, to take on innovative ideas, to draw from others and to inspire others. Be able to adapt flexibly to uncertain situations and have the tools to see through complex problems. Get ready for the XXI. challenges of the 21st century.

We consider it important to emphasize here that the introduction of an experiential, flow-type teaching methodology would be urgently needed in higher education. Achieving cognitive flexibility among students is an innovative way to increase creativity. Teaching habits need to be changed and a creative, flow-based education should be pursued (Dominek 2017). By inserting the teaching methodology previously described by the author, it would be possible to try and test this. The use and incorporation of the so-called flow phenomenon into the lecturer's style of training, as well as into the framework of training, can be the key to enhancing the teaching experience, thus achieving the development of soft skills. The methodology described by the author will be tested in the course of further research. In the light of the partial results presented above during the questionnaire research, it can be stated that the method of experiential pedagogy has a place in Hungarian higher education.

We consider it important to highlight the need to build a creative, hybrid higher education structure in higher education. However, an essential precondition for this is the use and incorporation of educators 'creativity into education, and the development of teaching methodologies can be the key to developing a hybrid education system.

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