

**Eötvös Loránd University**  
**Faculty of Education and Psychology**

**Doctoral (PhD) dissertation theses**

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**Creative education as an opportunity for equitable pedagogy**

*The methodology, effectiveness and possibilities for introducing  
creative education in schools – based on domestic and  
international pedagogical and methodological programme  
experiments*

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## Introduction

### 1.1 The research topic, its relevance and context

Since the turn of the millennium, one of the main topics in international and domestic educational science has been what kind of school is needed to prepare students for the challenges of the 21st century. In thinking about this, creativity occupies a prominent place among the most important competencies to be developed. Over the past 20 years, a number of influential international and domestic studies (Lubart, 2017) have focused on the relationship between creativity and effective learning. In 2011, the Real-World Learning Centre at the University of Winchester attempted to develop a framework and measurement tool

to assess the extent to which schools develop students' creativity. They began their research programme (Lucas et al., 2013) with a literature review, and based on the results of this and hundreds of classroom observations, they formulated a concept of school creativity that includes a total of five so-called main creativity dispositions and 15 sub-areas. This framework was used as the basis for the OECD CERI's five-year international research programme (Vincent-Lancrin et al., 2019) and the innovative supplementary component of the 2022 OECD PISA assessment (OECD PISA, 2023), which aims to map students' creative thinking. This framework views creativity as a competence that everyone possesses and whose development is one of the important tasks of schools. According to Bill Lucas, one of the creators of the model and professor of education at the University of Winchester, this five-element system values exploratory, opportunity-seeking thinking as much as focused, analytical problem solving (Lucas and Spencer, 2017). The five-element system of creative thinking allows for a broad interpretation of creativity and serves as a starting point for planning its development in schools. The five creative dispositions are curiosity, persistence, collaboration, discipline and imagination, each of which can be broken down into further easily graspable sub-units, allowing them to be incorporated into classroom work.

## 1.2 The aim and main chapters of the dissertation

The aim of the dissertation is to build on domestic and international pedagogical research conducted over the past 20 years and, in light of current educational literature, attempt to define the concept of creative teaching and learning and describe its problem areas. In addition, by presenting domestic and international creative teaching practices, it uses school case studies to determine the conditions for the creation of a creative school ethos and, based on the results of the research, outlines a possible scenario for the introduction of creative teaching into public education.

The professional basis for the first two chapters is provided by the OECD CERI project entitled "Developing and Measuring Creativity and Critical Thinking in Public Education" (Vincent-Lancrin et al., 2019), which ran from 2016 to 2020. The project had two objectives: firstly, to develop a common international language for creative pedagogy and, building on this, to create a set of pedagogical and methodological tools for developing creativity and critical thinking, and then to analyse their effectiveness through measurements of students, teachers and school leaders. On the other hand, it was considered important that the PISA assessment to be conducted in 2022 should include innovative tasks that measure creativity, taking into account the results of the project.

In the first phase of the project, in 2016–17, nine countries participated (Hungary, Thailand, Slovakia, the United States, France, Brazil, India, Russia and the Netherlands), and in the second phase (2018–19), 14 countries joined with their creativity development programmes, including the Creative Partnership Hungary<sup>1</sup> programme.

This was the first project in the history of OECD CERI in which the OECD's activities were not limited to measurement and evaluation, but also initiated a development process. This resulted in the creation of not only measurement tools, but also methodological programme packages that can help educational institutions worldwide to develop student creativity within and across subjects (Vincent-Lancrin et al., 2019).

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<sup>1</sup> The Creative Partnerships Hungary programme is the Hungarian adaptation and further development of the international Creative Partnerships programme, which has been operating since 2014. The Hungarian programme is run by the Creative Learning and Education Foundation. In 2023, the programme was selected by HundrEd as one of the 100 most innovative programmes in the world. The author of this doctoral dissertation has been involved in the introduction of the programme in Hungary since 2014 and has directed its implementation.

The items in the current bibliography compiled during the OECD project provide a suitable starting point for the literature review of the dissertation, while an examination of the curricula of the countries involved in the project makes it possible to answer the following questions: in countries that treat the development of creativity and critical thinking in schools as a priority, how is this educational and professional intention reflected in the country's core curriculum (curricula)? and what local programmes support the practical implementation of curriculum requirements.

Building on the findings of the first two chapters, the third chapter of the dissertation summarises the methodology of creative education based on the characteristics of the pedagogical programmes (signature pedagogies) that participated in the OECD CERi project. In doing so, it focuses in particular on the methodology of the Creative Partnerships programme, which served as the basis for the above project.

The experiences of the institutional implementation of the Creative Partnership programme are presented in the case studies of the fourth chapter, with a separate subchapter devoted to the analysis of the so-called creative planning documents written by the teachers and creative professionals working together in the partnership prior to the institutional testing of the programme. The feedback from the students, artists, teachers and institution leaders involved in the introduction of the programme is discussed in the fifth chapter of the dissertation. The sixth chapter attempts to develop an institutional implementation algorithm based on the programme introduction and operation experiences of the three cases presented and analysed, the results of the second and third chapters, and the feedback from the six programme managers of the Creative Partnerships international programme. The conclusion of the dissertation (Chapter 7), in line with the title of the dissertation, summarises the results of the first six chapters and, based on the results of the first six chapters, summarises the results of the first six chapters. The conclusion of the dissertation (Chapter 7), in line with the title of the dissertation, summarises the connections and main building blocks of creative and equitable pedagogy based on the results of the first six chapters.

Table 1: Structure of the dissertation

Main chapters	Main topics
1.	The concept and problem areas of creative education in light of current educational literature
2.	The systemic presence of creative education – creativity in curricula
3.	The methodology of creative education – based on international and domestic creative education programmes based on practice – the common main features of so-called "signature pedagogies" 4. Chapter 4
4.	The functioning of creative education in schools – based on the operational/implementation experience of the Creative Partnership programme – reflected in case studies (3 case studies)
5.	Creative education experiences from the perspective of participants (students, artists) (based on interviews and focus groups)
6.	Possibilities for introducing creative education into public education, a possible algorithm for implementation (According to the main findings of the dissertation)
7.	Creative education as a possibility for equitable pedagogy – conclusion
Appendices	

### 1.3 Research methods and tools

The dissertation mainly uses qualitative research approaches and techniques, but does so in a way that strives for quantification in both the analysis and the presentation of the results of the analysis<sup>2</sup>. Following a structured literature review in the first chapter, the second chapter analyses the curriculum documents of 15 selected countries using a uniform, five-dimensional framework. The presentation of the so-called signature pedagogies (Vincent-Lancrin et al., 2019, p. 100) and the methodological presentation of one of its basic models, the Creative Partnership programme, form the third chapter of the dissertation. The fourth chapter presents and evaluates the implementation of three school creative education programmes in the form of a case study, building on the analysis of the pedagogical programmes of public education institutions hosting creative classroom projects and the examination of the institutional reports of the National Competence Assessment. All three institutional examples were implemented in the classroom (subject) environment between 2015 and 2023, following the same creative methodology and involving collaboration between teachers and creative experts (artists).

In addition to the case study, other data collection and analysis methods were also used in writing the dissertation. Figure 3 illustrates the relationship between these methods. The fieldwork period covered the period between 2015 and 2020, which was preceded by a literature review, but the literature review also accompanied the entire process of writing the dissertation. In relation to the dissertation, document analysis refers to the analysis of international curricula, institutional professional documents, and classroom planning and project completion documents related to the Creative Partnerships programme. The case study and the subsequent analysis of the programme participants' experiences (Chapter 5) follow interview and focus group data collection and related data analysis methods, which were analysed using Atlas.ti content analysis software. Thus, the use of the edge-coding technique<sup>3</sup> made it possible to quantify the qualitative data and to illustrate the relationships between the main content nodes. In Chapter 6 of the dissertation, the conditions for the introduction of creative education into public education are determined based on the analysis of the responses to structured questions from six international Creative Partnership programme hosts. This chapter also presents a possible introduction algorithm based on the results of the empirical basis of the dissertation.

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<sup>2</sup> See, for example, chapters 2, 4 and 5.

<sup>3</sup> In the written version of the audio materials, we mark the smallest independent, interpretable piece of information with a content code, then form code families from the codes, which then provide the main topics of the analysis. The list of codes and topics is included in Chapter 5, and the complete list of code families is included in the Appendix to the dissertation.

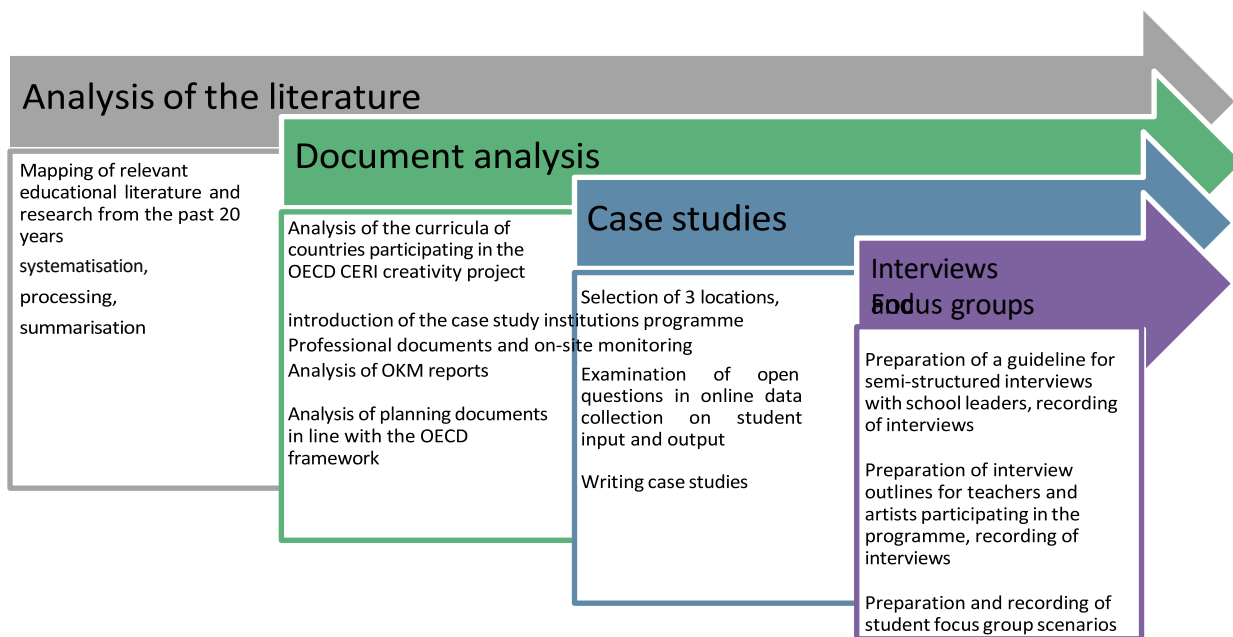


Figure 1: Main research methods of the dissertation

## 1.5 Main research questions and hypotheses

- 1. Is it possible to determine the main conditions for the introduction of creative education into public education and a possible implementation algorithm based on an international comparative analysis of the international educational literature on creative pedagogy and the appearance of creativity in curricula, as well as an integrated examination of empirical experiences of creative pedagogical practices and programmes?**

### Hypothesis 1:

It can be assumed that an analysis of international literature, a comparative analysis of curriculum documents, and a joint analysis of the experiences of teachers, students and programme organisers participating in creative education programmes will make it possible to identify the systemic conditions for the introduction of creative education into public education and to create a coherent implementation algorithm consisting of interrelated elements.

- 2. Do creative pedagogical approaches and creative educational programmes contribute to strengthening equity in education, with particular regard to student participation, autonomy and the redefinition of learning success?**

### Hypothesis 2:

It can be assumed that creative pedagogical approaches and creative educational programmes promote greater equity in education by providing a broader interpretative framework for student success, increasing meaningful student participation and creating opportunities for students from different backgrounds to develop their creative competences.

## 2. Results and conclusions

### 2.1 The creative pedagogy model

Creative learning builds on the active, creative participation of students in the learning process. While creative teaching focuses on the teacher's creative methods and creativity education focuses on developing students' creativity, creative learning focuses on the learning process itself, during which students creatively create and acquire knowledge while also developing their own creative competences.

Table 2: Main characteristics of creative teaching, creativity education and creative learning (Source: own table)

Category	Creative teaching	Creativity education	Creative learning
Objective	Making the curriculum more enjoyable and effective using creative methods	Developing students' creativity	Acquiring and applying knowledge in a creative way
Methods	Innovative and interactive teaching methods	Tasks and projects that stimulate creative thinking	Problem solving, experience-based and project-based learning
Student participation	Active participation Encouraging	Independent and critical thinking	Active and creative participation
Student independence	Limited, teacher-directed	High, independent thinking and problem solving	High, students learn at their own at their own pace and according to their interests
Interaction	Teacher-student interaction Enhancement	Interaction between students and cooperation	Collaboration and interactive tools
Innovation	Use of a variety of teaching tools	Encouraging new ideas and approaches	Innovation and new ideas development

The aim of creative teaching is to make learning more enjoyable and effective for students by using creative tools. This can be achieved through innovative and interactive teaching methods that encourage student activity, albeit in a teacher-directed manner. A variety of pedagogical and methodological solutions are used to enhance teacher-student interaction.

The aim of creativity education is to develop students' creativity through tasks and projects that stimulate creative thinking. This approach encourages students to think critically, supports their independent decision-making and helps them find their own solutions. By strengthening interaction and cooperation among students, it encourages them to develop new ideas and approaches.

In creative learning, students acquire and apply knowledge in creative ways, mostly through problem-solving, experience-based and project-based solutions. This emphasises the active and creative participation of students in the learning process, which they can shape according to their own pace and interests. Creative learning makes students active participants: it gives them the opportunity to use their imagination and their own experiences, to collaborate with their peers in solving tasks, to participate in shaping the local curriculum, and to critically reflect on their own learning processes and teaching methods (Jeffrey & Craft, 2004, p. 51). Through interactive tools and collaboration, students strive to innovate and generate new ideas, developing and implementing their own creative solutions.

Lin (2009) collectively referred to these three areas as creative pedagogy, and in his model, he emphasised the interaction between the individual areas.

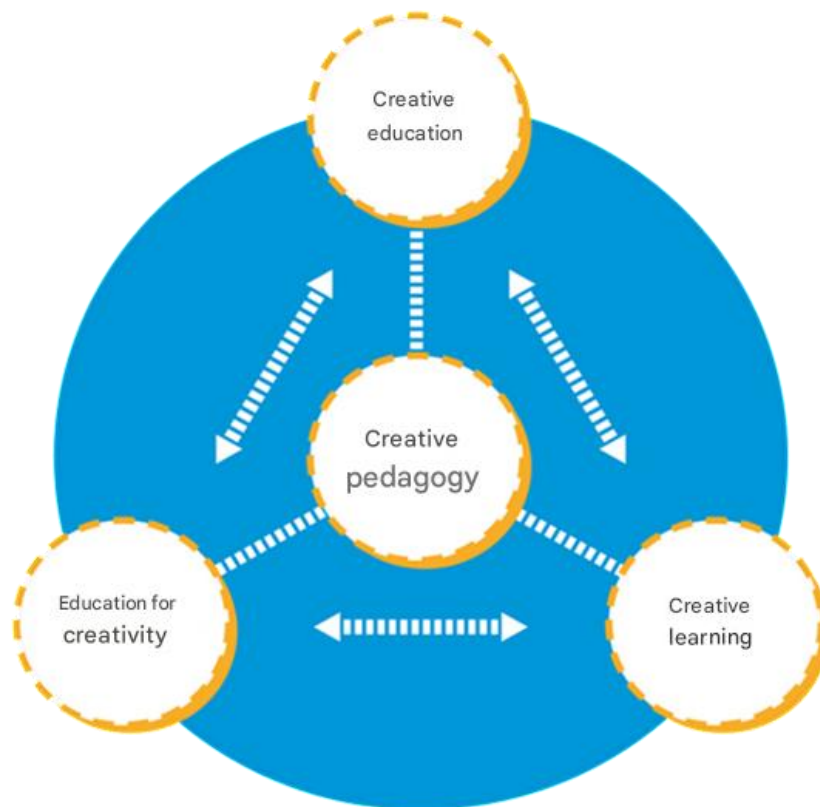


Figure 2: The three elements of creative pedagogy. (Source: Lin, 2011).

## 2.2 Basic conditions for creative learning

A creative learning environment is key to developing students' creative abilities. A supportive, inspiring physical and pedagogical environment and the encouragement of student independence and collaboration all contribute to making learning enjoyable, relevant and motivating. In addition, a well-designed creative learning environment also allows students to learn at their own pace and according to their interests (Robinson, 2001), emphasising their responsibility for their own learning.

The flexibility of creative learning environments allows for dynamic transformation of learning spaces in order to connect different learner needs and learning activities. According to Jeffrey and Craft (2004), flexible learning spaces help students to try out different forms of education, to switch easily between individual and group activities, and to have ample space to participate in creative projects. Flexible use of space and adaptability are supported by physical spaces that can be quickly and easily rearranged and adapted to changing learning needs.

Davies and colleagues (2013) also found strong evidence that student creativity is closely related to the frequency of collaboration with peers, participation in group and individual assessment and feedback, and even the quality of time spent in the group. In addition, they found evidence that creative learning environments have a positive impact on students' academic performance, increased self-confidence and perseverance, increased motivation and commitment to learning, development of social, emotional and thinking skills, and reduced absenteeism.

Based on the learning principles outlined above, creative learning environments can be described according to the following key characteristics:

Table 3: Main conditions for a creative learning environment (Source: own compilation)

Condition	Brief description
Teacher role and competencies	Teachers act as facilitators and mentors, encouraging students' creativity and independence. (Robinson, 2001; Sawyer, 2006) They provide positive feedback and create an error-tolerant environment. (Davies et al., 2013)
Encouraging and safe environment, flexibility	A safe environment where students can take risks without fear of making mistakes. (Dweck, 200; Amabile, 1996) The physical space can be easily rearranged to suit different learning styles and can be adapted to activities. (Davies et al., 2013)
Time and space for creativity	Creative thinking and creation require a sufficient amount of time and a suitable, well-equipped physical environment. (Csíkszentmihályi, 1996; Robinson, 2001)
Multimodal learning opportunities	Integration of different learning styles and methods, visual, auditory, and kinaesthetic modes. (Gardner, 1983; Kolb, 1984)
Supportive social network	Positive social interactions and opportunities for collaboration, encouraging peer learning. (Johnson, Johnson, & Holubec, 1994; Vygotsky, 1978) Students can work together, share their ideas and solve problems together. (Davies et al., 2013)
Access to various resources and materials, interactive use of tools	Access to books, art materials, digital tools and other learning aids. (Amabile, 1996; Hunya, 2013) Interactive whiteboards, tablets and digital platforms increase students' commitment and motivation. (Davies et al., 2013)
Creative freedom	Students have the opportunity to make independent discoveries and realise their own ideas. (Davies et al., 2013)

A creative learning environment provides opportunities not only for the development of students' creativity, but also for the professional development of teachers. In this space, both students and teachers have the opportunity to take risks, experiment, and try out different pedagogical approaches. In order for teachers to develop their creative competence, they need opportunities to try things out, to make mistakes without severe consequences, and to follow their professional instincts. In this way, failure is not stigmatised but becomes an important part of professional learning (e.g. Gillborn & Youdell, 1999; Kempf, 2016, cited in Upitis, 2014, p. 3).

Although it is generally easy to see that a stimulus-poor learning environment hinders the development of creative potential, creating a truly supportive creative learning environment is a much more complex task. The learning environment does not affect all learners in the same way; the same environment may encourage creative thinking in some, but may even hold others back. For this reason, supporting creativity in the classroom requires conscious pedagogical work, which includes continuously observing how learners, both individually and in groups, take advantage of the opportunities offered by the given learning environment (Beghetto & Kaufman, 2010)<sup>4</sup>.

The concept of classroom creativity (Beghetto & Kaufman, 2014) refers to the pedagogical space in which creative thinking is embedded in classroom activities.

<sup>4</sup> This includes encouraging students to share their creativity, providing supportive feedback to students when they do so, and modelling creativity for students in everyday teaching activities.

In the words of Szettele (2020), by introducing the concept of classroom creativity, the authors recommend integrating creativity into everyday pedagogical practice, "as they believe that the right methods and techniques can act as creativity enhancers in the learning process" (Szettele, 2020, p. 71).

## 2.3 The emergence of creativity in curricula

The integration of creativity into the curriculum is not only a pedagogical innovation, but also a paradigm shift in thinking about learning. In a creative curriculum, knowledge and imagination are not opposites, but mutually reinforcing factors (Cremin & Barnes, 2015). According to Cremin and Barnes (2015), the curriculum's task is to provide a framework for discovery, meaning-making and meaningful action, while recognising the diversity and individual experiences of learners.

The analysis presented in the dissertation is based on a country analysis prepared along 15 structured criteria, which is based on the analysis of documents from countries that have been consistently identified in international research (Gereke, 2019; Taylor et al., 2020; Lucas, 2022; OECD, 2023) consistently identify as leading examples of the integration and systematic development of creativity – and, more broadly, 21st-century competences – into the curriculum. The aim of the comprehensive analysis is to explore how these systems integrate creative thinking and related competences into curriculum structures, how they support these in pedagogical practice, and how they link them to assessment and measurement frameworks.

## 2.4 Main types of curriculum practices in the countries studied

Based on a comparison of the data, groups of countries emerge that show similarities in the status of creativity in the curriculum, its conceptual interpretation and its main dimensions. These groups include education systems that place creativity in a similar position in the curriculum, are based on similar pedagogical principles, or use rubrics of similar depth and structure. The country types that can be identified in this way are as follows:

### 1. Type: **Creativity as an explicit, independent key competence**

The first group of countries includes those systems that present creativity as a clearly defined, independent key competence and associate it with a coherent, detailed curriculum framework. These include Australia, Finland, Scotland and Singapore, where creativity is a transversal competence that spans all subjects and is regulated by national-level documents. In these countries, creativity is not merely a pedagogical goal, but a structured area of development linked to iterative, often design thinking-based processes (e.g. idea generation, refinement, implementation, reflection). These systems share the characteristics of clear definitions, precise staging of the development process, and the use of detailed rubrics to support teachers' work.

### 2. Type: **Creativity as an embedded element of the curriculum**

The second type includes countries where creativity is not a separate competence but is embedded in other key competences. This approach is characteristic of Canada, Chile, Spain's national framework, Israel and Hong Kong, where creativity appears most often as part of learning to learn, problem solving, innovation or entrepreneurial thinking. In such models, creativity appears implicitly at the intersection of several areas of development and is often linked to specific subjects or project types. The level of detail in the rubrics is generally moderate: they provide sufficient guidance for teachers, while allowing greater freedom of interpretation and methodology. These systems rely heavily on local pedagogical cultures and

interpret creativity through a set of competences that include learner autonomy, collaboration and openness to innovation.

### 3. Type: **Implicit creativity interpreted as a pedagogical principle**

Countries in the third category interpret creativity not primarily as a curricular category, but as a culturally grounded pedagogical principle. These include Japan, India and, in some respects — the United Kingdom, where creativity is rooted in student attitudes, habits of mind, community norms, and aesthetic and cultural traditions. In these systems, creativity is less formalised, often assessed qualitatively, and reflective, disciplined, persistent work or community-social learning is given a prominent role. The lack of rubrics is often compensated for by local pedagogical practices, such as Japanese lesson study or Indian community projects.

The countries studied can also be classified into three groups based on the degree of curriculum regulation: high, medium and low.

*High curricular regulation* refers to an education system in which the development of creativity is defined in detail in centralised, national-level curricular documents, with clear conceptual definitions, dimensions and levels of development. The regulations are uniform, binding and cover subject coverage, pedagogical expectations and assessment frameworks. The appearance of creativity in the curriculum in these systems is coherent, standardised and coordinated at the system level, which ensures national uniformity and a common understanding among teachers (Finland; Scotland; Australia; Singapore; Japan; Hong Kong).

*Medium curriculum regulation* refers to a system in which creativity development is formally included in the curriculum framework but is not fully centrally regulated. Regulation is typically based on provincial, regional or framework-type national documents that set out guidelines and recommendations, but leave the detailed definition – for example, the dimensions of creativity, levels of development or assessment tools – largely to the local or institutional level. In these systems, the curricular status of creativity lies between explicit and implicit approaches: there are formal references and learning expectations, but the conceptual and assessment frameworks are not uniform, only partially standardised. Medium regulation thus provides both a certain degree of control and significant local autonomy, resulting in moderate variability in implementation (Canada – Ontario, Québec, Alberta; Chile; Spain – national framework; Spain – Navarra; Israel; Netherlands – SLO; Netherlands – Quick Scan; United Kingdom).

Finally, *low curricular regulation* is characteristic of systems in which the development of creativity is shaped not by central curriculum requirements but by local, provincial, school or civil society frameworks. In such contexts, the status of creativity in the curriculum is variable, often implicit, and lacks a uniform national definition, dimension system or assessment standard. Regulation is loose and decentralised, which allows for a high degree of freedom for innovation, but also results in significant regional and institutional variability in the interpretation and development of creativity (USA - BIE, PCS, NAEP, holistic rubrics; India - CCE; India - DFC).

By combining the above two dimensions, a typological matrix can be created in which the curricular concepts of regulation and creativity are defined as two independent dimensions. Regulation indicates a structural feature of the curriculum system, while the conceptual status of creativity is a content-related or conceptual feature. The independence of the two variables justifies that the typology captures the position of countries not on a single axis, but in a two-dimensional matrix.

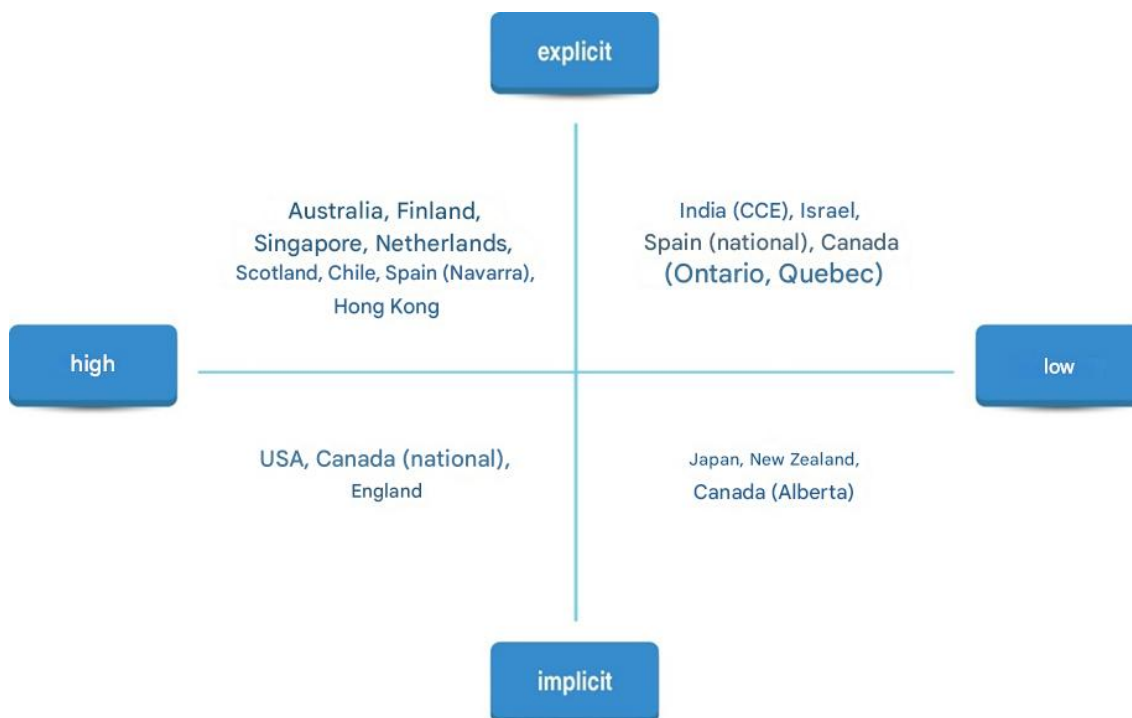


Figure 3: Main types of countries and jurisdictions examined based on the appearance of the concepts of regulation and creativity in the curriculum (own figure)

### 3. The practice of creative pedagogies

Although it is essential that creativity and creative thinking are explicitly mentioned in curriculum documents, this alone is not sufficient for creative learning to truly flourish. Creativity becomes an integral part of the learning process when curriculum objectives are consistently incorporated into everyday classroom practice and supported by pedagogical methods, learning organisation forms and assessment procedures. Consequently, the development of creative thinking is not merely a question of content, but also a pedagogical and methodological challenge. This approach is supported by Lucas and Spencer (2017) and the OECD CERI position (Vincent-Lancrin et al., 2019), who go beyond the curriculum framework to identify pedagogical methods that are particularly effective in cultivating and developing creative thinking.

In these approaches, learning is based on real-world problems and focuses on design processes such as discovery, interpretation, brainstorming, experimentation and the development of selected appropriate ideas. These are referred to as signature pedagogies, i.e.

"teaching and learning methods that are most likely to lead to the desired skill" (Lucas & Spencer, 2017, p. 7) and represent the unique DNA or fingerprint of creative thinking (Lucas & Spencer, 2017, p. 36).

The OECD CERI (Vincent-Lancrin et al., 2019) has identified eleven characteristic signature pedagogies, all of which "correspond to holistic pedagogies that propose a teaching and learning philosophy and a holistic pedagogical approach based on specific processes and techniques" (Vincent-Lancrin et al., 2019, p. 100).

### 3.1 The basic model of creative signature pedagogies: Creative Partnerships

Among signature pedagogies, the Creative Partnerships programme (CP), developed in the United Kingdom, is a model for cooperation between creative professionals and educators in schools<sup>5</sup> and has been successfully adapted outside Hungary in Ireland, Norway, Germany, the Netherlands, Australia, the Czech Republic, Pakistan, Chile, Thailand and Lithuania. Creative Partnerships has become an international programme, whose unified methodology has since served not only as inspiration for other creative education initiatives, but also as the basis for an international research and development project conducted within the framework of the OECD CERI.

One of the fundamental principles of CP programmes is that the arts can and indeed should be used as a building block, but not in isolation from other subjects, rather integrated into them. The so-called "artists in the classroom" programmes have a long history, and numerous analyses have been published on the participation of artists in school work (Galton, 2010; Hall et al., 2007), which highlight the importance and effectiveness of this practice in several respects. One finding that recurs in all analyses is that the involvement of artists in the educational process has a positive effect on students' academic performance and creative abilities (Galton, 2010). An impact assessment of arts programmes among secondary school students showed that these programmes increase students' creativity and academic performance, especially among disadvantaged students (Kisida & Bowen, 2019). This correlation was also demonstrated in the Creative Partnerships Hungary programme, when we examined changes in the mathematical competences and performance of disadvantaged students in a control group study (Collard et al, 2016).

The Creative Partnerships programme represents an "education through art" approach (see table below), as its methodology makes the arts an integral part of the learning process. The use of artistic tools promotes the development of various skills in students – whether creative thinking, problem solving, cooperation or critical thinking – in an experience-based way, integrated into school subjects, thus contributing to a more effective and enjoyable learning process. The integration of art into the teaching and learning process is guaranteed by the presence of artists in the classroom. The long-term collaboration between the teacher and the artist (the artist as a trained creative professional) provides an opportunity to combine artistic and pedagogical approaches to problem-solving, bringing a new quality to school and classroom work.

### 3.2 The methodology of the Creative Partnerships programme

The programme has developed a pedagogical approach called "high-functioning classroom", which encourages teachers to transform their classroom work. The transformation of learning and teaching is based on artistic and creative processes, which are channelled into classroom and school life, and methodological techniques related to subject teaching are transferred from artistic practice. When working with students in the classroom and school spaces, the artist remains an artist and the teacher remains a teacher. The programme does not offer art education: the Creative Partnerships programme prepares artists to work with teachers and students in order to achieve sustainable change in teachers' teaching practices and students' learning methods, and to develop the creativity and critical thinking of all participants in the programme (Collard et al, 2016).

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<sup>5</sup><https://www.creativitycultureeducation.org/>

An evaluation of the English programme (McLellan et al., 2012) points out that students "perform highly" in an educational environment where they themselves are the primary source of learning and where mobility, emotions, teamwork and risk-taking are an integral part of the learning process. In this type of education, children experience learning with their whole being – learning is not just a mental process, but something that engages their bodies, emotions and social skills. This type of "high performance" fosters a sense of well-being in children, which is the basis for the resilience and confidence necessary for successful learning. The effectiveness of these practical methods lies in their direct impact on learners' sense of competence, autonomy and belonging. They support two important sources of sustainable learning: activity and motivation. This is why researchers (Galton, 2007) have found that students in Creative Partnership schools are more engaged, behave better and achieve better results. According to Galton (2007):

"In this model of educational progression, children move from acquiring knowledge already known to others to a level where they are able to organise this knowledge within a given framework, and then to a point where, without too much help, they can create their own individual frameworks or rearrange existing ones, relying on their own thought processes." (Galton, 2007, pp. 5-6).

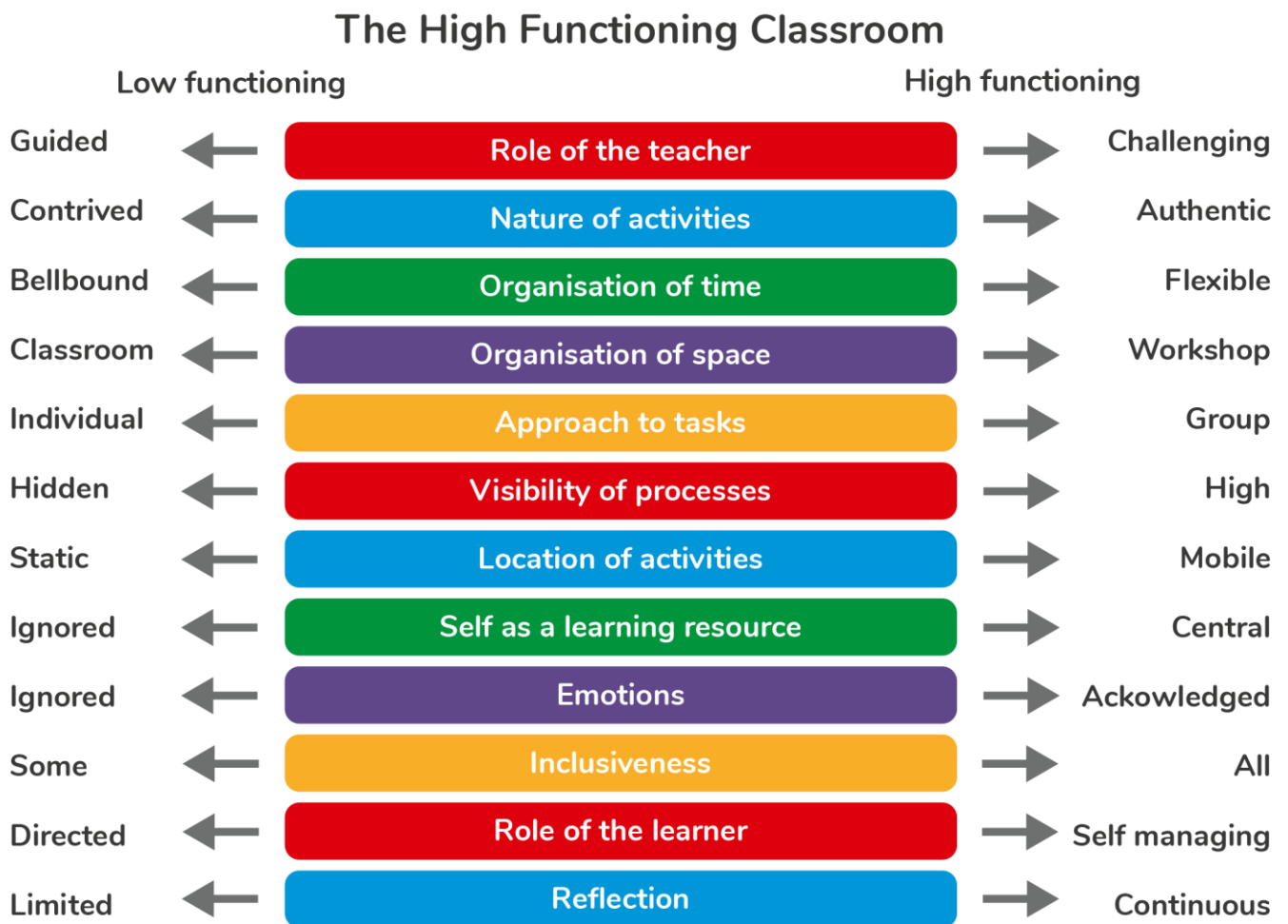


Figure 4: Characteristics of the 'high-functioning classroom' (Source: Collard et al, 2016)

### 3.3 The concept of creativity in the Creative Partnerships programme

The Creative Partnership Programme's concept of creativity is based on a framework of creative dispositions (Lucas et al., 2013). The model developed by Lucas, Claxton and Spencer (2013) breaks creativity down into five main elements, each of which is further divided into sub-elements. This model views creativity as a skill that is inherent in everyone and can be developed in school. According to Lucas and Spencer (Lucas & Spencer, 2017), one of the creators of the model, this five-element system values exploratory, opportunity-seeking thinking as much as focused, analytical problem solving. The five-element system of creative thinking allows for a broad interpretation of creativity and serves as a starting point for planning its development in schools. The five creative dispositions are curiosity, persistence, collaboration, discipline and imagination, each of which can be broken down into further, easily graspable sub-units, allowing their development to be integrated into classroom work.

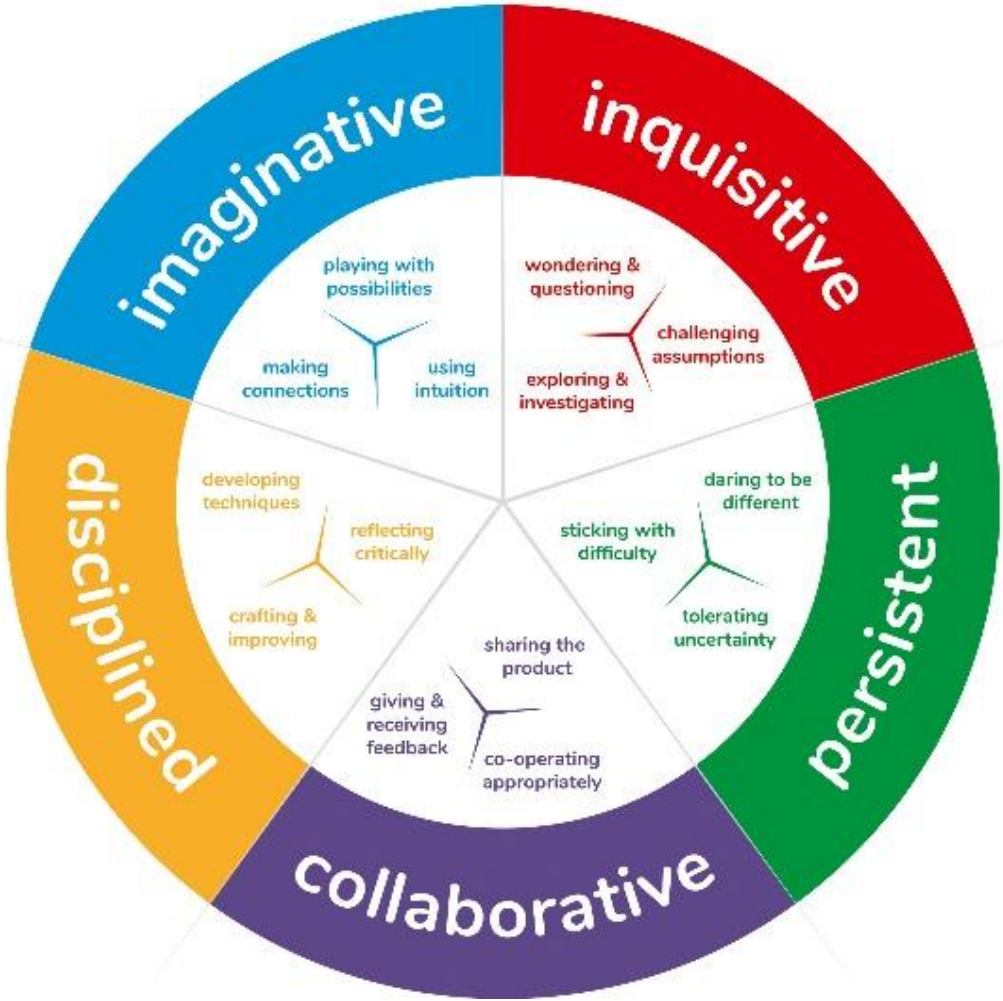


Figure 5: Dispositions of creative thinking (Source: Lucas & Spencer, 2017.)

Each dimension of the model consists of three sub-dimensions that determine the content and functioning of the given main component. Together, these sub-dimensions outline the creative dispositions that support the development of creative thinking and problem solving as fundamental personal characteristics. Curiosity manifests itself in the motivation to ask questions, explore and try out new situations, promoting an open and exploratory attitude in learners. Perseverance involves the constructive management of uncertainties and failures, tenacity and the ability to take risks, which enables the maintenance of longer-term, often iterative creative processes. Imagination refers to the ability to generate possible solutions, recognise connections between distant concepts and consciously apply intuitive thinking, thereby encouraging the exploration of new perspectives and alternatives. Discipline is based on the development of the technical and cognitive foundations of creative work, methodical practice, and self-reflective critical evaluation, ensuring that ideas are shaped into coherent, high-quality results. Cooperation, on the other hand, involves integrating the views of others, giving and receiving mutual feedback, and sharing results, which requires a high level of emotional intelligence and interpersonal sensitivity.

The task of the creative professional working alongside the teacher is to represent the 5×3 system of creative dispositions as a constant consideration in lesson planning. They ensure that when processing the subject matter of a given subject, the focus is always on developing creativity that is appropriate to the given context. During weekly joint planning sessions, teachers gradually become more comfortable with this framework and, through collaboration with artists, learn to routinely apply the system of dispositions in their own lesson planning practice.

### 3.4 The OECD's creativity development framework

The OECD criteria distinguish four basic components in both creativity and critical thinking: questioning, imagination, action and reflection. These macro-processes represent the main elements of creative and critical thinking. The criteria do not seek to define a prescribed sequence of steps: the order may vary depending on the tasks or the different approaches and solutions adopted by students (Vincent-Lancrin et al., 2019, p. 129). Criteria systems emphasise the importance of both developmental and evaluative thinking processes and the need to move beyond a narrow concept of creativity that focuses solely on originality. Evaluative, convergent thinking processes are precisely those in which students activate their subject knowledge (within the framework of the tasks), thus ensuring a strong connection to the curriculum content (Cropley, 2006; Baer, 2015). The sub-dimension of reflection provides an opportunity to apply metacognitive pedagogies that promote the development of creativity and critical thinking by having teachers and students review how they use these skills in the school environment (Mevarech and Kramarski, 2014).

The framework was not designed to serve a single type of task, but as a flexible system that can be applied in a wide range of learning situations and task types (Vincent-Lancrin et al., 2019, p. 69). In addition to the domain-general versions, the developers have also created domain-specific rubrics that identify the most important sub-skills related to creativity and critical thinking tailored to subject contexts. These skills support learners in solving tasks in a given subject more effectively and in developing new approaches and ways of interpretation through independent thinking. At the same time, subject-specific frameworks serve as practical tools for teachers: they enable the critical review and further development of existing teaching practices

and encourage the design of tasks and activities that specifically support the development of students' creative and critical thinking.

Table 4: The so-called domain-general conceptual framework (rubric) developed by OECD CERI

	CREATIVITY Coming up with new ideas and solutions	CRITICAL THINKING Questioning and evaluating ideas and solutions
QUESTION	Making connections between different concepts and knowledge from the same or different scientific fields	Identifying and questioning assumptions and commonly accepted beliefs or practices
IMAGINATION	Generating and testing unusual and bold ideas	Examining a problem from multiple perspectives, based on different assumptions
ACTION	Creating, implementing, or envisioning a meaningful, personally novel outcome	Examining and explaining the strengths and limitations of a product, solution or theory along logical, ethical or aesthetic criteria
REFLECTION	Considering the novelty of the solution and its possible consequences	Weighing the chosen solution/position against possible alternatives

### 3. Creative school programmes and their reception in three schools – case study and qualitative research

The case study presented in the dissertation describes Creative Partnership classroom activities, all of which are based on the creative disposition model developed by Lucas et al. (2013). follows the concept of the so-called well-functioning classroom in its pedagogy, the activities of each project are classified according to the creativity dimension of the domain-independent framework presented above, and the evaluation of the implemented sessions is based on the task design criteria for so-called high-quality creative tasks developed by the OECD CERI.

The preparation of the projects followed the same algorithm in all three schools and started with the same objectives. In all three cases, a primary school joined the programme with the aim of improving the educational situation of marginalised groups, such as Roma, people with disabilities, and families with multiple disadvantages. They also aimed to reduce the frequency of conflicts between local student groups (such as Roma and non-Roma) within the institution. As explained in detail above, by creative learning space we do not mean infrastructure, but rather an environment that enables students to develop a learning community by strengthening their self-image, and developing their imagination, curiosity, perseverance and cooperation – through the joint work of artists and teachers.

The three cases presented and analysed were as follows:

1. Case 1: Teaching mathematics using creative methods – Pécs

1.1 Maths with an imaginary new classmate

(Leading artists: Erik Tollas and Zsófia Nagy, painters. Year: 5. Subjects: mathematics, physical education. 25 February 2015 – 2 May 2015)

1.2. The Jungle

(Lead artists: Krisztina Vladár and Flóra Tornyai, visual artists. Grade: 5. Subjects: Mathematics, geography. 27 February 2015 – 30 April 2015)

2. Case: Artists in the Classroom - Budapest, District 8

2.1 The Suitcase

(Lead artist: József R. Juhász, poet, performer. Grade: 6. Subjects: mathematics, history. 31 March 2017 – 31 May 2017)

2.2 Playground

(Lead artist: Ágnes Szabics. Grade: 5. Subjects: mathematics, drawing. Duration: 3 April 2017 - 25 May 2017)

2.3 Matches in an imaginary sport

(Lead artists: Krisztina Erdei, visual artist – Zsófia Szemző, visual artist. Year: 3rd Subjects: physical education, technology. Duration: 5 April 2017 – 8 June 2017)

3. Case study: A well-functioning classroom – Újpest

3.1 Forest of numbers

(Lead artists: Bernadett Kovács, graphic designer. Year: 4. Subjects: physical education, technology. Duration: 5 April 2021 – 8 June 2021.

3.2 The Collage Film

(Lead artists: Miklós Soltis, painter; Szilárd Dézsi, theatre director; Krisztina Vladár, visual artist. Grade: 6th Subject: Hungarian literature. Duration: 11 February – 25 May 2021)

## 1.1 Main features of the classroom projects implemented

All of the classroom projects that were implemented had the same pedagogical methodological background, used the same pedagogical tools, started with the same objectives, and were run by artists with similar interests. The similarity of the basic characteristics was reinforced by the product-oriented approach found in each project, i.e. that the individual stages of the learning process should be visible to students, teachers, artists and even other relevant actors (e.g. parents, schoolmates, etc.). In addition, product orientation also meant, as stated in the planning documents, that each artist considered concluding the joint work with some kind of visible, tangible "thing". This joint "something" could be a kind of joint activity, the creation of a joint object/installation, the implementation of an interactive learning environment, or even a community event. Each project operated within the framework of the curriculum, in the form of morning, real-time school sessions, and it is particularly important to emphasise the word "school" here, as each artist - depending on the nature of the individual sessions appropriately - consciously left the classroom environment and made use of the entire school's available spaces. The students worked in the club room, the corridor, the basement workshop, the schoolyard, the assembly hall, and in some cases even the teachers' rooms became venues for activities. Every participating class from the eighth district school was able to leave the school premises, in many cases for the first time

in their school career. The classes visited the Ludwig Museum, and one class also visited the nearby Müszi. (The school and Müszi are located on the same street, but there had never been any cooperation between the two venues before.) The majority of the pupils participating in the programme at the Budai-Városcapu School had never before taken part in a lesson in which they worked on mathematics outside the school, using the opportunities offered by the city. One reason for this is their age (most of them were 10-11 years old), and according to the teachers, it would have required too much preparation. The sixth-grade pupils at the school in Újpest went on an excursion with the artists at the end of the school year. This joint excursion was requested by the pupils, who offered the opportunity and invitation to the artists as a gift.

Group work was also a common feature of the activities taking place within the classroom setting. Each planning document included a separate section describing the artists' observations of how difficult they found it to hold small group activities with the selected classes. According to the teachers, the selected pupils are unable to cooperate, do not listen to each other, are not interested in each other's opinions or work, and therefore do not meet the conditions for working effectively in a group. The artists' practice was quite the opposite: in their opinion, group learning offers opportunities for cooperation and allows students to develop their social skills in a challenging way, while keeping them on track.

Despite the many similarities outlined above, based on the feedback and the final project reports, different implementation patterns can be identified along two main axes of analysis. One of these axes is the flexible consideration of students' ideas and changes along the way, and the other is the artist's insistence on their own quality expectations for their own artistic products, even during joint work. Along these axes, four main types of community projects emerge.

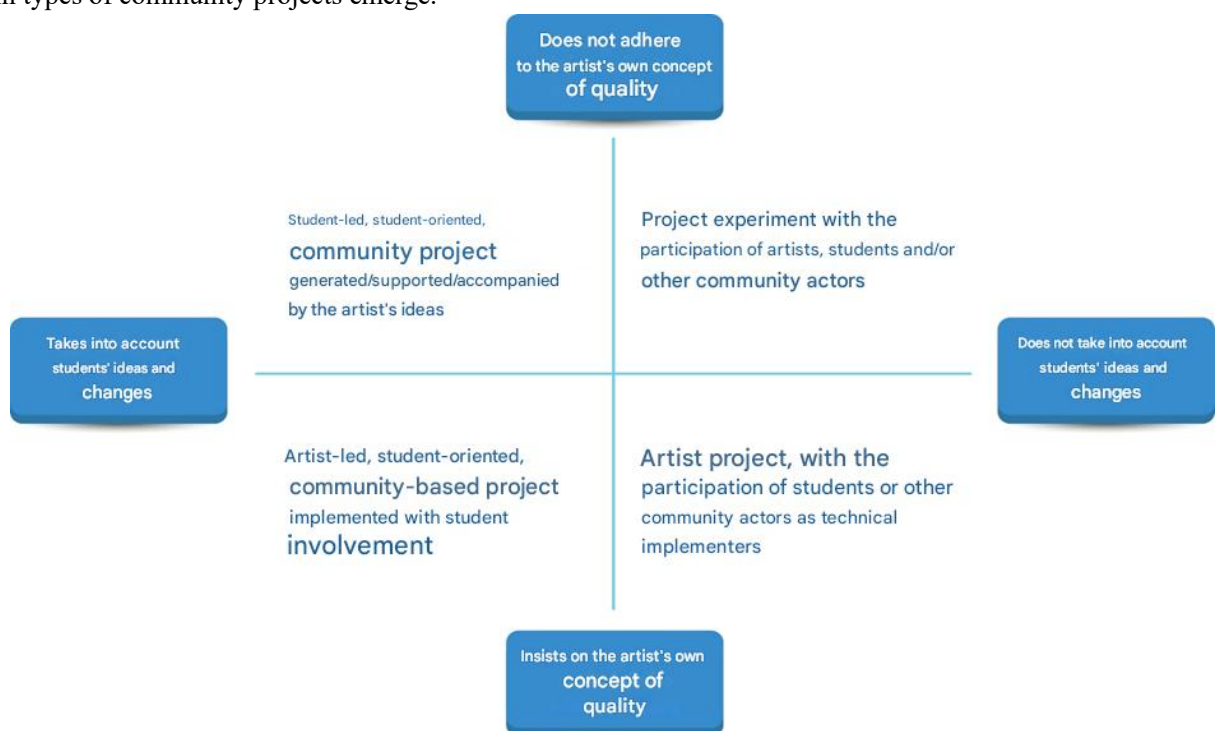


Figure 6: Main types of community projects according to the artist's role (Own figure)

All of the creative educational projects implemented in the three schools can be classified as either the first or second type in the model outlined above.

## 1.2 Evaluation of the activity system of the projects

If, in addition to the role of artists, we take the nature of the activities as a basis, the analysis of the seven

art education projects examined reveals a complex pedagogical structure that clearly interprets learning as a multidimensional, creative and experiential process. Although the projects work with different subject focuses (mathematics, literature, physical education, visual culture), a common didactic concept based on creativity, cooperation and active knowledge building can be recognised in all of them. A systematic mapping of the activities shows that the task and activity structure of each project fits closely with the general creativity development framework<sup>6</sup>, i.e. it consistently operates the main dimensions of inquiring (exploratory thinking), imagining (idea generation), doing (productive creation) and reflecting (reflective evaluation). As a result, the projects not only convey subject knowledge, but also create a holistic learning environment that supports the entire process of creative thinking and problem solving.

Further grouping of the classified activities on the basis of content also shows which recurring pedagogical patterns and didactic procedures appear in practice, such as exploratory learning, creative idea generation, visual-motor forms of expression, cooperative problem solving, product creation and various forms of reflection. These larger units outline the rubric-based toolkit of creative pedagogy, i.e. the practical repertoire on which projects consistently support the development of students' creative and critical thinking.

*Table 5: Main categories of creative teaching tools – based on examples of classroom projects presented (own table)*

Teaching category	Project examples
1. Exploratory and knowledge-discovery activities	"Envelope" tasks, coordinate football, map making and orientation exercises,
2. Creative idea generation	figure creation experiments, rewriting texts, spatial design sketches
3. Movement, spatial and dramatic learning	movement-based mathematical situations, representation of geometric concepts with the body movement-based performativity, role-playing scenes
4. Cooperative problem solving and strategy development	so-called maths puzzles, role-playing trading tasks, class photo reconstruction, group decision-making situations
5. Visualisation and image-creating activities	models, storyboards mood charts, figures
6. Product creation	jointly edited film, life-size installations, campsite plans and group merchandise
7. Reflection and self-assessment	spider diagrams, mood charts, follow-up work and joint evaluation
8. Subject knowledge building	geometry, proportions, finance, character analysis, story creation compulsory reading, historical periods comparison

### 4.3 Creative teaching experiences from the participants' perspective

As part of the research basis for this doctoral dissertation, two structured interviews with directors, five partially structured interviews with teachers, five partially structured interviews with artists in small groups, and two focus group discussions with parents and four with students were conducted. Based on these, it is possible to reconstruct the reception of the programme, explore its characteristics, and summarise the effects experienced.

*Table 6: Subjects and locations of qualitative data collection in Chapter 5*

School Location	Pupils	Teachers	Artists	Parents	Headteacher s
Pécs	student focus group 1 student focus group 2	Teacher 1 Teacher 2	artist 1 artist 2	Parent Focus Group 1	Headteacher 1
Budapest	student focus group 3 students focus group 4	Teacher 3 Teacher 4	artist 3 artist 4 artist 5	Parent Focus Group 2	Headteacher 2

Following the analysis of individual interviews and focus group discussions with programme participants (students, teachers, artists, parents and head teachers), seven recurring themes emerged, which serve as the basic units of analysis. These themes – known as code families – systematise the experiences, opinions and impressions that emerged in the interviews, enabling the data to be processed and interpreted in a structured manner. The recurring themes show that the impact and uniqueness of the programme, the characterisation of student development, experience-based creativity, the assessment of pedagogical methodology, the challenges accompanying implementation and the methods of cooperation play a central role in the narratives of all stakeholder groups.



Figure 7: Main themes of the analysis – codes and code families, by type of interviewee.

### 4.3 Evaluation of teacher-artist collaborations

The collaboration between teachers and artists is one of the most important elements of the programmes, and the way in which this collaboration takes place fundamentally determines the success of a given classroom activity and its impact on the development of the pupils. For teachers, this collaboration not only meant trying out new teaching methods, but also provided an opportunity to integrate approaches derived from artistic practice into the teaching-learning process. For teachers, the involvement of artists posed serious challenges, but at the same time, the collaboration brought new professional experiences that enriched their teaching practice, made education more enjoyable for students, and enabled the development of students' creative thinking and creative competences.

## 4. A possible algorithm for the systematic introduction of creative education

The implementation conditions identified in OECD analyses (Vincent-Lancrin, 2021; OECD, 2023), the practical experiences of six international Creative Partnership programme managers (Lithuanian, Czech, British, Norwegian, Pakistani and Thai) in structured interviews, and the empirical results of this dissertation make it possible to develop a finely tuned implementation algorithm that interprets the introduction of creative education in public education not as a series of isolated interventions, but as a

systemic process that builds on itself and operates with feedback. In this sense, the systemic development of creativity can only be achieved if all elements, from conceptual and normative foundations to policy legitimacy and curriculum embedding to structural, assessment and teacher support conditions, form a coherent whole. The factors that appear at different levels – the learning environment, inclusion, institutional and managerial support, and local partnerships – do not follow each other in a linear fashion, but reinforce each other's effects, while continuous monitoring and adaptive feedback ensure the system's learning ability. The model presented in the following figure illustrates this cyclical, adaptive logic and also shows how the key elements of introducing creative education are linked in a long-term, sustainable, system-level implementation framework.

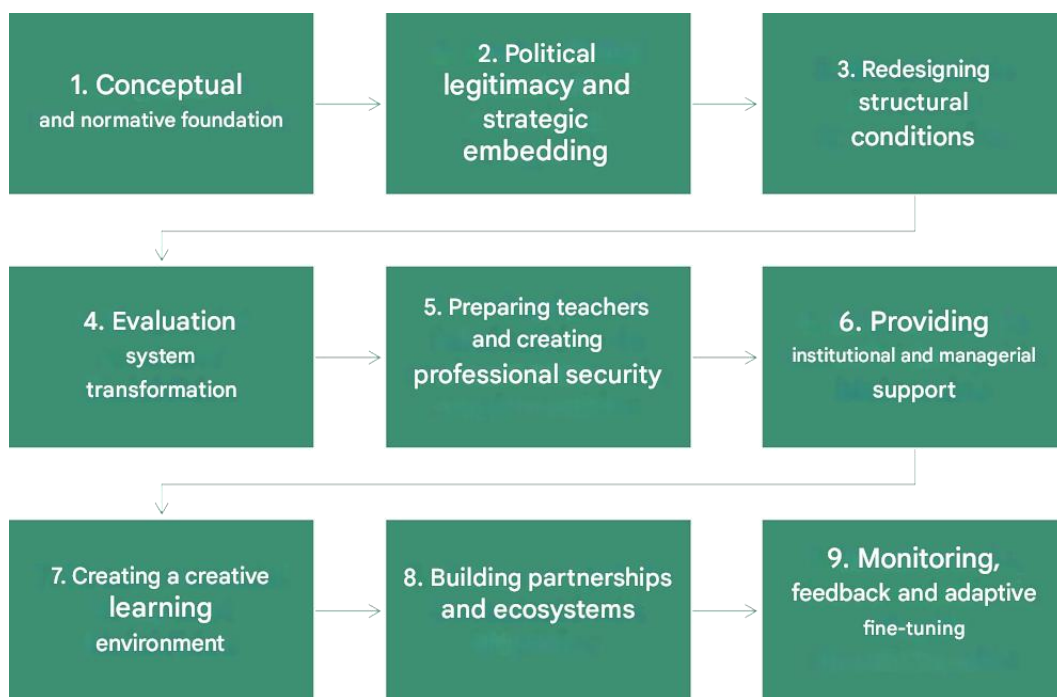


Figure 8: Possible algorithm for the systematic introduction of creative education (own illustration)

## 5. Creative education as an opportunity for equitable pedagogy – Conclusion

The doctoral dissertation examined the relevance and applicability of creative education in public education with two objectives in mind. On the one hand, it sought to interpret creative education as a pedagogical approach in its theoretical and policy contexts, and on the other hand, through an empirical analysis of creative learning programmes implemented in disadvantaged schools, it sought to explore the practical functioning of creative education and the mechanisms through which creative learning can become a pedagogical opportunity that is also relevant from the point of view of equity. The results of the dissertation thus attempt to shed light not only on the pedagogical conditions for the development of creativity, but also on how creative education can be interpreted as a systemic intervention capable of responding to structural inequalities in public education.

Based on the analyses presented in the individual chapters of the dissertation, it can be concluded with regard to the research questions and hypotheses that a creative pedagogical approach can contribute to reducing structural inequalities within the education system if it is supported by an appropriate policy and legal environment. The different socio-cultural backgrounds of students manifest themselves not only in

individual disadvantages, but also in systemic disadvantages, the management of which goes beyond the scope of individual teachers. Creative education can become an effective tool in this regard if curriculum regulations, assessment systems, teacher training and resource allocation all convey the principle of fairness and create frameworks that enable the widespread and sustainable application of innovative, differentiated pedagogical practices. Without this, creative pedagogical solutions remain primarily isolated initiatives and are unable to counterbalance the differences arising from unequal starting conditions at the systemic level.



*Figure 9 Key building blocks of equitable creative education (Source: Own figure)*

The elements in the figure above clearly indicate that fairness in creative education is not achieved through a single point of intervention, but rather through a system of closely interrelated factors. Reducing structural inequalities and ensuring equal access creates the basic conditions without which it is not possible to treat student diversity as a pedagogical resource. This forms the basis for strengthening student autonomy and agency, as well as placing the learning process at the forefront, which reflects the internal logic of creative learning. All this is made sustainable by a safe yet challenging learning environment and developmental, reflective assessment practices. The figure as a whole thus not only outlines a normative framework, but also offers a coherent interpretative model in which creativity and equity appear as mutually reinforcing principles, which can also serve as a basis for future developments in public education.

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See MTMT (Szilvia Németh, Sociology of Education)