



Erasmus+

School projects for development of entrepreneurship And it's done A Year not only Outdoors

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Working Academics Value Excellence
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School projects for development of entrepreneurship



And It's Done – Nine crafts

A Year not only Outdoors

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This publication is dedicated to the Erasmus+ KA2 international project

Working Academics Value Excellence for International Teachers

(WAVE-IT; 2019-1-CZ01-KA203-061386)



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Introduction

Europe, as well as the rest of the world, has undergone a number of major changes in recent years. Wars, international conflicts of different magnitude and political changes have had a tremendous impact on all societies. There has been a significant movement of people around the world, which makes it very likely that any teacher in the world now has a student in their classroom from a different linguistic and ethno-cultural background.

We also know that there have been rapid technological developments in society that are affecting education in several ways. These affect the goals and content of schooling, but also the way we communicate and learn in schools and beyond. These changes require new approaches to teaching and learning. We probably need a different kind of teacher for this new type of learning.

In the WAVE-IT project, we have focused our attention on the development of teachers' skills for the 21st century and on entrepreneurship education, considering key themes promoted by the European Commission such as inclusion, innovation, and quality enhancement through interactive learning environments and enhanced knowledge transfer.

The topic of developing competence for entrepreneurship is one of the current themes of school and out-of-school education and is closely related to the content of several educational areas, key competencies, or cross-curricular topics within the most important Czech curricular documents. Education and development in the field of entrepreneurship aims to help pupils to navigate the labour market, the economic and business world, to communicate and solve problems effectively and to use ICT and foreign languages effectively (Jůvová, 2015). Education for entrepreneurship is also related to the development of 21st century skills (21st CS), which can inspire the creation of progressive design of learning environments that support the development of the necessary competencies (Jůvová et al., 2015).

In the WAVE-IT project, we aimed to provide teachers and future teachers with an overview of innovative teaching methods and examples of good practice in the European context. This project stimulates the development of entrepreneurial, creative, and innovative skills (World Economic Forum 'The Future of Jobs Report 2018'). In the project activities, we tried to engage teachers and future teachers to contribute together to designing practical recommendations to support the development of entrepreneurship in educational practice, and to develop, test and put into practice methodological proposals for school projects. In the preparation of these school projects, we focused on the content, innovation, and the possibility of using the project in primary education.

This methodological material was developed as one of the outputs for IO1: Methodological Strategies for Entrepreneurship in Primary and Secondary Education. It is an educational material that promotes methodological strategies for the development of entrepreneurship in pupils at primary school, incorporating innovative strategies and moving away from inflexible models of school education. It is directly related to the development of skills for the 21st century and incorporates them into an innovative school curriculum.

1 Entrepreneurship

Entrepreneurship is understood as an individual's ability to create value, opportunities and possibilities for oneself and for others, possibilities for activity, innovative action, earning money and satisfaction of needs. Passivity, laziness, or boredom can be considered the opposite of entrepreneurship. In documents developed by European Union, entrepreneurship is defined as “...*the ability of an individual to translate ideas into practice, which includes creativity, innovation, a sense of initiative and risk-taking, as well as the ability to plan and manage projects in order to achieve certain results. In the context of the development of an advanced European society, this is a key competence for promoting economic and social well-being and increasing employability*” (The Council of the European Union, 2015).

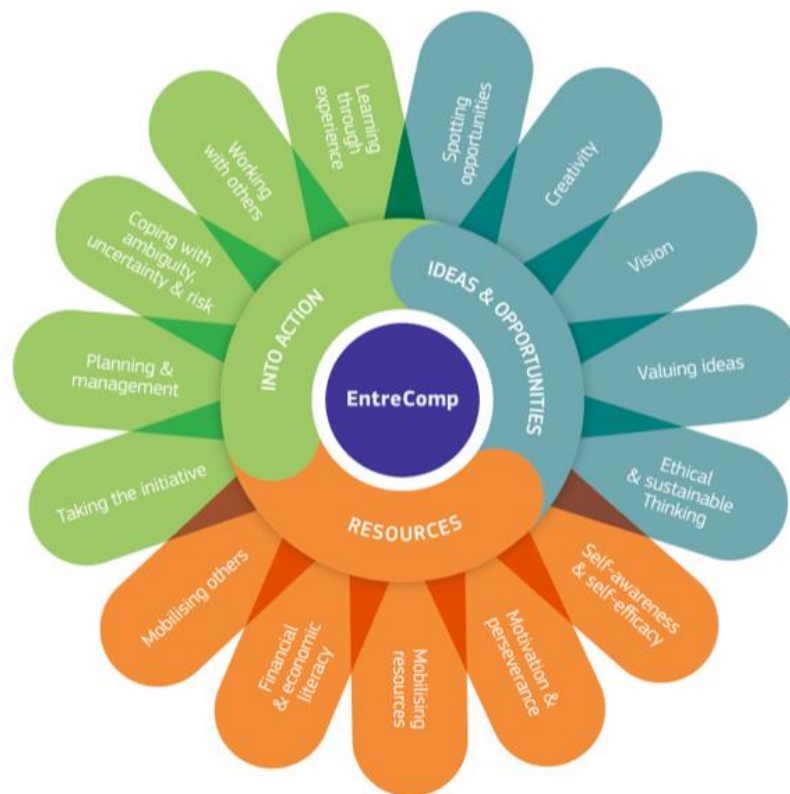
The majority of our population grows up in a consumerist lifestyle and is guided to accept it from childhood. That is largely counterproductive for the development of entrepreneurship, because it leads only to passive entertainment and consumption. Entrepreneurial education has become an essential part of the education of children and young people and it is defined and embedded under the term entrepreneurial competence not only in documents developed by European Commission but also in the curricular documents of European countries.

Specifically, we can mention EntreComp: the European Entrepreneurship Competence Framework (European Union, 2018). “EntreComp is a framework of 15 entrepreneurial competencies, further divided into threads that describe what a particular competence actually means in practice. These are clearly defined through learning outcomes – what the student knows, understands, and can do. The learning outcomes are mapped at 8 different levels of progression, from beginner to expert” (European Union, 2018, p. 4). “The EntreComp reference framework defines entrepreneurship as the ability to seize opportunities and ideas and create value for others from them, whether financial, cultural or societal. EntreComp distinguishes three competency areas: 1. ideas and opportunities, 2. resources, and 3. into action, and within these, fifteen competencies that together form the entrepreneurial mindset” (NPI, 2021) see Figure 1.

Educational activities in the field of entrepreneurship development are also linked to the context in which innovative approaches are formed. The EntreComp reference framework presents a definition of entrepreneurship as a competence in order to reach a consensus among all stakeholders and to create a bridge between the worlds of education and work. In these complicated and challenging times, it is essential that all pupils, students and graduates achieve the appropriate qualifications and successfully enter the labour market.

The development of imagination, resourcefulness, but also craftsmanship, an active attitude to life – these are issues that are necessarily included in the educational process. “*Entrepreneurial education is one of the top priority themes of the European Union's education policy and it aims to develop knowledge, skills, abilities and competencies in respect to self-development, creative thinking, problem solving, success in project management, or developing the ability to achieve success in adulthood*” (Jůvová, Čech & Duda, 2017). The result of this process should be a creative and active individual who seeks opportunities to find where and with what they can establish themselves in the society in a way that brings them satisfaction and fulfillment not only of their financial needs.

Figure 1: Areas of Entrepreneurial Competence



(NPI, P-KAP, 2011; own translation)

Entrepreneurship, or rather an entrepreneur, can also have a pejorative connotation. The term entrepreneur can refer to a person who enriches themselves at the expense of others, works by dishonest methods often beyond the boundaries of the law, and does all this with the vision of the highest possible profit. This unflattering label needs to be changed in society so that an entrepreneurial person is seen positively as someone who carries out their plans within the bounds of the law and is able to produce value that benefits the society through their ideas and abilities, and through that process gains not only financial but also mental and social satisfaction. This distinction should be explained over a long period of time not only to pupils but also to their parents and the public, see Table 1.

We are aware that society is undergoing rapid technological changes that are affecting education in schools in several ways. These include not only the transformation of the objectives and contents of education, which are reflected in curricular documents, see the ongoing adjustments to the Framework Education Program for Elementary Schools, Strategy of the Education Policy of the Czech Republic up to 2030+ and The Long-term Plan for Education and the Development of the Education System of the Czech Republic 2019–2023. In these documents, digital or alternatively financial literacy is emphasized (RVP ZV, 2023). The way teachers and pupils communicate is also changing, experiential learning methods are being incorporated into teaching and the use of informal learning is gaining attention. These changes require not only new approaches to teaching and learning, but also changes in teacher training and further education.

Table 1: Examples of value creation. How different stakeholders in a society create value for others.

Stakeholder	Creates value for	How value for others is created	Financial/social/cultural type	Routine/Explorative type
Established business	Customers, employees and shareholders	By offering commercial services and products	Financial value	Routine
Business entrepreneur	Customers, employees and shareholders	By offering novel commercial services and products	Financial value	Explorative
Social entrepreneur	Society and individuals in need	By offering novel social services and products	Financial, social and cultural value	Explorative
Welfare state	Citizens of the state	By offering welfare services	Financial, social and cultural value	Routine
Family member	Family members	By always being there	Social value	Routine
Pets	Other family members	By always being present	Social value	Routine
Artist	Other individuals	By entertaining, provoking and triggering new thoughts	Cultural value	Routine/Explorative
Student	Future employers/family, society	By preparing for work life; by becoming an educated citizen	Financial, social and cultural value	Routine
Teacher	Students	By facilitating student learning	Social and cultural value	Routine

(Lackéus, 2015)

Knowledge is now seen not just as static information in textbooks, but as insights, experiences, values, skills, that are shared between teachers and their pupil/pupils. *“Knowledge can be broadly defined as a set of formed experiences, values, beliefs, related information, and professional perspectives, providing a framework for evaluating and incorporating new experiences and information, emerging and applied in people’s minds”* (Friedel, 2003). This innovative approach to teaching, learning and assessment is used by "entrepreneurial teachers". Entrepreneurial education involves active, creative, and innovative teacher approaches to pupils.

Entrepreneurial education includes financial literacy and enterprise education and focuses on creativity, courage to set goals, empowerment and trust, collaboration with others, reaching common goals and adding value to collaboration and society. In short, at OPEDUCA entrepreneurship is about the essence of developing the capacity to turn ideas into action. To do this, in the BusinessClass, and in all other tools and activities, established entrepreneurs play an important role.

1.1 Competencies for entrepreneurship

Even the youngest children need to be explained that financial rewards are given for a job well done. In a school environment where rewards only appear in the form of grades, this is admittedly an abstract case and can only be explained in a figurative way. Nevertheless, we can also create very concrete situations where we can use activities during the school year to organize events that have an interesting “earning effect“ for the pupils (school projects, school performances, fairs, etc.). In this way, they can gradually become aware of the connection between the energy they devote to the activities (rehearsing performances, making and selling their own products) and reaching goals.

Positive emotions are also an important part of this process – they help students to associate value creation with a sense of satisfaction from a job well done, to experience the joy of a successful performance, to strengthen their self-esteem and confidence in their own abilities. Closely related to this approach is the choice of a career, where pupils gradually realise that they can experience these positive emotions in their future profession and not just endure working hours. In recent years, as a result of the fourth industrial revolution and its impact on the labour market, professions are emerging and disappearing, the requirements for developing skills for the 21st century are changing, and mass retraining and up-skilling across sectors are taking place as part of lifelong learning (World Economic Forum, 2020).

Currently, the future of professions in the labour market is conditioned primarily by the intensive development of science and technology, which signalled the beginning of the fourth industrial revolution, and by innovation and related changes in the way the educational process is conducted. The way in which knowledge is shared is also evolving, particularly in the aftermath of the SARS-CoV-19 pandemic, and we are witnessing the rapid emergence of artificial intelligence (AI). More and more teachers, professionals and educational institutions are making use of online distance learning. Its main advantage is the possibility to impact a significant number of pupils/students through shared content, regardless of the day or time (World Economic Forum, 2020; Hotmart, 2022). As a result of the global SARS-CoV-19 pandemic, the economic sector is experiencing, among other things:

- an acceleration in the digitalization of work processes (e.g. the use of digital tools, videoconferencing), or their expansion,
- the development of digitalization in education – up-skilling/re-skilling (e.g. educational technology providers),
- expanding opportunities for remote work,
- acceleration of task automation and acceleration of ongoing organizational transformation (e.g. re-structuring) (World Economic Forum, 2020).

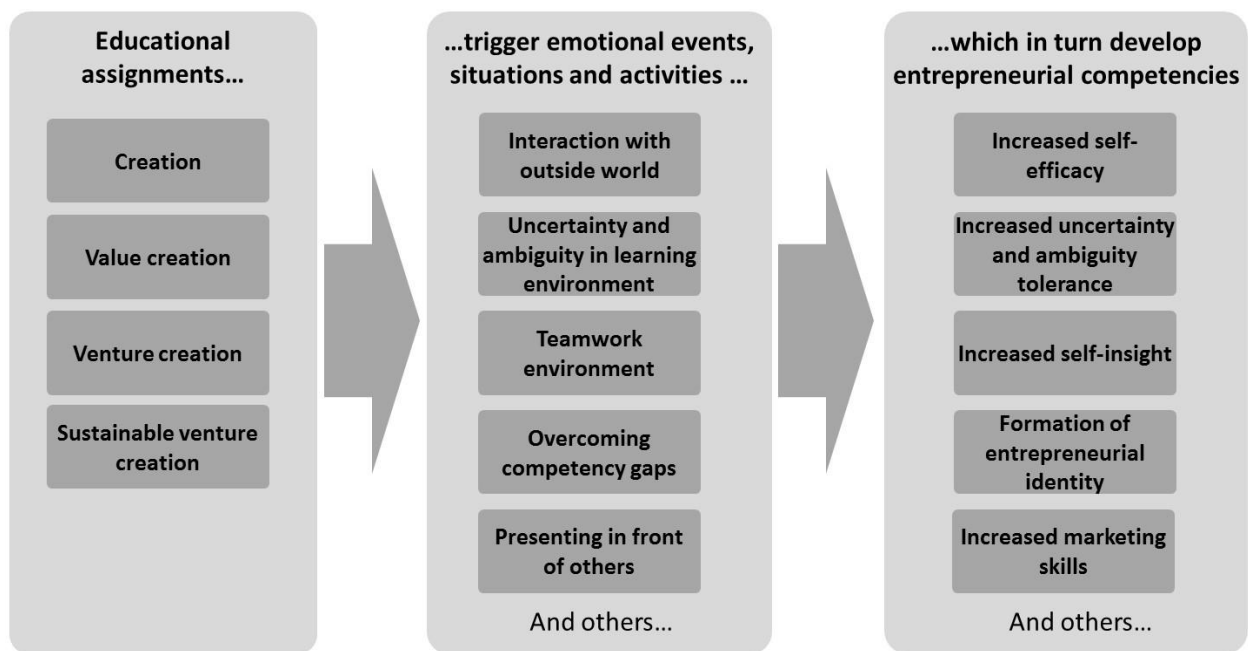
According to The World Economic Forum's in its Future of Jobs Survey from 2020 report, the following are the 15 skills employers will expect their employees to have by 2025 (World Economic Forum, 2020):

1. Analytical thinking and innovation.
2. Active strategies for learning and teaching.
3. Complex problem-solving skills.
4. Critical thinking and analysis.
5. Creativity, originality, and initiative.
6. Leadership and social influence.
7. Technology use, monitoring, and control.
8. Technology design and development.
9. Resilience, stress resistance and flexibility.
10. Reasoning, problem solving and ideas.
11. Emotional intelligence.
12. Troubleshooting and user experience.
13. Service orientation.
14. Systematic analysis and evaluation.
15. Persuasion and negotiation.

There is constant debate about the importance of schools preparing pupils for the future, often for jobs/professions many of which do not yet exist. But we don't always realize that some of these new jobs and fields will evolve from the current ones, that the base for people's new needs are the needs of the present. Therefore, if students become well equipped within the current limits, we can assume they will be well prepared for the future. They will co-create this new "setting" and thus build on all that has preceded it. So those who claim that it is uncertain what pupils need to learn for the future have not yet realized that for the future, they need to master the present, which of course is directly related to the past. The circle is thus closing, the cycle is repeating itself, and some of the rules for developing entrepreneurship still apply, it is just the social environment that changes, from which we can draw inspiration. We can talk about scientific, cultural, technological, medical, agricultural, and other environments.

The feeling of a job well done can be experienced wherever there are individuals who like to do their work, who think about how to do it more efficiently, more effectively, better so that it is more beneficial for the individual and for society. It is extremely difficult to promote this active approach at a time when most people are surrounded by entertainment that they merely consume and their lifestyle is passive. It is therefore necessary to start entrepreneurial education as early as possible, preferably in school, so that pupils understand the value of such an active approach. Today, it is certainly not about ordering pupils to turn off their computers and limiting their use of ICT, but about making these activities complementary – one can support the other. Relaxation will allow more involvement in work activities. Even while playing a computer game, a great idea can arise. It's just a matter of using everyone's potential for the satisfaction of the individual and the benefit of the whole society.

Figure 2: A model of entrepreneurial education and its outcomes. The relationship between educational assignments, emotional events / situations / activities and developed entrepreneurial competencies.



(Lackéus, 2015, p. 27)

There are three approaches in entrepreneurial education, namely education “about” entrepreneurship, “for” entrepreneurship and “through” entrepreneurship. The aim of teaching “about” entrepreneurship is to provide a general understanding of the phenomenon. Teaching “for” entrepreneurship aims at providing pupils/beginner entrepreneurs with the necessary knowledge and skills. Teaching “through” entrepreneurship is an experiential process where pupils attempt to make their project a reality. This approach often relies on a broader definition of entrepreneurship and can be integrated into other subjects in the educational process (cf. Lackéus, 2015). Unlike the first two approaches, which are aimed at pupils who are already training for their careers, teaching “through” entrepreneurship is relevant for all pupils and at all school levels. The main goal of most entrepreneurship education is to develop some level of competence for entrepreneurship. These competencies are defined as knowledge, skills and attitudes that influence the willingness and ability to perform entrepreneurial work and thus create new value, see Table 2 (Lackéus, 2015).

In this table, entrepreneurship competencies are defined as knowledge, skills and attitudes that influence the willingness and ability to create new value in business. Teachers can then encourage their pupils to be independent by assigning independent tasks that require pupils' creativity, efforts to apply their own ideas and teamwork.

Table 2: Entrepreneurial competencies. Framework outlining key entrepreneurial competencies and their relation to cognitive and non-cognitive competencies

	Main theme	Sub themes	Primary source	Interpretation used in this report
Cognitive competencies	Knowledge	Mental models	(Kraiger et al., 1993)	Knowledge about how to get things done without resources, risk and probability models.
		Declarative knowledge	(Kraiger et al., 1993)	Basics of entrepreneurship, value creation, idea generation, opportunities, accounting, finance, technology, marketing, risk, etc.
		Self-insight	(Kraiger et al., 1993)	Knowledge of personal fit with being an entrepreneur/being entrepreneurial.
	Skills	Marketing skills	(Fisher et al., 2008)	Conducting market research, assessing the marketplace, marketing products and services, Persuasion, getting people excited about your ideas, dealing with customers, communicating a vision.
		Resource skills	(Fisher et al., 2008)	Creating a business plan, creating a financial plan, obtaining financing, securing access to resources.
		Opportunity skills	(Fisher et al., 2008)	Recognizing and acting on business opportunities and other kinds of opportunities, product/service/concept development skills.
		Interpersonal skills	(Fisher et al., 2008)	Leadership, motivating others, managing people, listening, resolving conflict, socializing.
		Learning skills	(Fisher et al., 2008)	Active learning, adapting to new situations, coping with uncertainty.
		Strategic skills	(Fisher et al., 2008)	Setting priorities (goal setting) and focusing on goals, defining a vision, developing a strategy, identifying strategic partners.
		Attitudes	Entrepreneurial passion	(Fisher et al., 2008)
Self-efficacy	(Fisher et al., 2008)		"I can". Belief in one's ability to perform certain tasks successfully.	
Entrepreneurial identity	(Krueger, 2005, Krueger, 2007)		"I am/I value, I appreciate". Deep beliefs, role identity, values.	
Proactiveness	(Sánchez, 2011, Murnieks, 2007)		"I do". Action-oriented, initiator, proactive.	
Uncertainty / ambiguity tolerance	(Sánchez, 2011, Murnieks, 2007)		"I dare". Comfortable with uncertainty and ambiguity, adaptable, open to surprises.	
Innovativeness	(Krueger, 2005, Murnieks, 2007)		"I create". Novel thoughts/actions, unpredictability, radical change, innovative, visionary, creative, rule breaker.	
Perseverance	(Markman et al., 2005, Cotton, 1991)		"I overcome". Ability to overcome adverse circumstances.	

(Lackéus, 2015, p.13)

2 School projects for development of entrepreneurship

At the younger school age, the question of career choice is something that pupils cannot fully grasp and consider the extent of their decision consciously. At the younger school age, pupils have moved beyond the kindergarten level of knowledge where they believe that money is found in an ATM and understand that people go to work and earn money for their living needs, they recognize the value of money, but many do not know what occupations their parents have.

The question of career choice is gradually raised in all educational areas of the Framework Education Program for Elementary schools. The first opportunity to address this issue is the educational area "Man and the world of work". The subject most frequently mentioned in connection to the idea associated with possible future occupation is crafts. But its focus is to improve in activities related to fine motor and manual skills. The result is the satisfaction of a creating something that often has functional and aesthetic value. Students work with textiles, yarns, wood, plastics, ceramic clay, and other materials. They cut, fold, glue, assemble and model. The educational areas "Man and his world" and "Man and society" offer the opportunity to address this issue throughout the educational process. Since a significant part of this area is devoted to history and the basic functions of a democratic society, there is not much room to discuss the choice of a profession. The topic deserves to be covered more extensively.

Other areas, given their scope, also offer opportunities to approach these issues, but this often takes form of marginal or supplementary information. The educational area of "Language and linguistic communication" can help by additional reading, appropriate selection of texts to be processed or by discussing vocabulary in a foreign language environment. Mathematics and its applications can help with appropriate types of word problems, requiring accuracy, consistency, control and discipline. The Computer Science area has different objectives and does not deal with the choice of careers, although in this case, there are some connections. The areas of "Man and Nature", "Art and Culture" and "Man and Health" also have the potential to comment on the issue of career choice, but this is always a rather peripheral issue and not a central one.

Nevertheless, it is important to address career choices from the beginning of schooling so that pupils have a realistic idea of different professions. While pupils in the first grade in the questionnaire about their future occupation give first ideas such as garbage collector, policeman, princess, actress, in the questionnaire for pupils in the fifth grade, more realistic ideas about future occupations appear according to the pupils' current interests.

We have therefore devoted one whole school year to a project focused on this area – to practically introduce pupils to as many professions as possible, in cooperation with experts and representatives of a specific profession. The aim of the project was to open up to pupils as wide a range of careers, both intellectual and physical, as possible.

When selecting the project, we focused on the possibilities offered by the school's immediate surroundings and approached parents willing to cooperate in the project. We also looked for experts in areas that we do not have in our municipality and agreed to work with them to visit the school and work with the children. Some local craftsmen invited us to visit their workshops, and besides the necessary information, they allowed pupils to do simple activities.

When selecting the experts, we did not follow gender stereotypes, i.e. whether the profession is perceived as male or female. In our opinion, this division is, with very few exceptions, no longer relevant. Girls in a blacksmith's shop or boys milking cows - it was all about understanding the nature of the chosen profession without reference to any other parameters. It did not matter whether the girls were driving a tractor, or the boys were learning to use a sewing machine. The pupils approached everything we offered them with natural curiosity.

Over the course of the school year, the students learned about the following professions: policeman, salesman, fireman, carpenter, blacksmith, veterinarian, cook, seamstress, farmer, actor, traveller, dentist, architect and writer. The aim of these meetings was to introduce pupils to the profession, to show them its pros and cons, to give them space for active involvement in specific activities that are characteristic of this profession. It was a specific work, which each pupil could try out in a simplified form. The conditions for the activity were specific (heat at the forge, smell in the cowshed, etc.).

The meeting with representatives of the professions followed a uniform structure. At the beginning, the practitioner introduced the pupils to the nature of their profession through a lecture and a presentation. During this theoretical part, the pupils could ask additional questions. This was followed by a practical part, where the pupils tried out typical activities of the profession, including lessons on occupational safety. Pupils were usually divided into smaller groups and performed pre-set tasks. At this stage, the expert gave advice and assistance or showed a more appropriate working procedure. The groups of pupils usually took turns at the stations, but sometimes the groups completed the same task and the results were compared during the final reflection. Some of the practical activities resulted in a small product, while others resulted in an actual activity characteristic of a particular profession. In the final reflection, the pupils commented on everything that had taken place that had made a positive as well as a negative impression on them.

The final speech was given by a practitioner who responded to the students' suggestions. The pupils' own performance in the work activities was not assessed, because we did not want to determine the individual pupils' experience. The aim was not to produce something but to introduce the pupil to a specific profession, see Appendix 1.

2.1 Methodological framework of the school project And It's Done – Nine crafts

All project activities took place during school hours. Sometimes it was a full-day project, but many filled only one or two lessons to complement the content of the subject (e.g. librarian – reading in Czech language, carpenter – crafts, traveller – natural history and geography, etc.).

For Mother's Day, we prepared a vocation-focused performance for parents and the community. The voluntary admission fee collected by the pupils was divided based on the pupils' preference between the dog shelter which used the money for dog food and the school which paid for the bus for the school trip for all pupils. The final event of this year-long project was a fair at the end of the school year. The products made by the pupils over several months were sold. The pupils also decided on these earnings independently – we found it very motivating that the pupils saw a concrete result behind their work.

Another aspect we pursued in this project was the development of digital literacy as a prerequisite for the future development of the whole society. The current Czech educational system has shifted considerably to a virtual environment in the era of coronavirus quarantines. Therefore, changes have begun to take place to move towards greater and deeper digital literacy. These competencies are identified as key competencies.

In the school environment, this means a new concept of the subject Computer Science, which is compulsory for the pupils between 4th grade of primary and 9th grade of lower-secondary school level. The subject is aimed at a deeper mastery of the use of computer technology and the basics of programming. In our small village school, we started teaching robotics in September 2021 as part of the WAVE-IT project, using Bee-Bots.

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This long-term project has provided pupils with continuous knowledge in a certain direction, which is a very positive moment in personal development. It also brings emotional stimuli, conditions for cooperation between the school and the immediate environment and with parents while developing community-oriented mindset in our community.

2.2 Project And It's Done – Nine Crafts – choice of topic and content focus

The choice of the topic for this long-term project was based on the facts described above. The aim was to bring the world of adult work closer to younger school-age pupils so that they could gain not only facts but also experience. We were not looking for a gender balance in the different professions, nor did we want to impose our views on anyone. We gave the pupils the opportunity to learn about something or try something out.

Throughout the project, the pupils were accompanied by two fairy tale characters – Pat and Mat, who are known from the short stories of *Večerníček* (Czech bedtime tv programme for children). In the stories, these two mischief-makers embark on various DIY experiments, which often end badly and the main characters always have to come up with some unglamorous solution. Pat and Mat also appeared in our school party as presenters of the whole programme (see Appendix 1).

In preparation, we mapped out the possibilities offered by the immediate area so that we would not have to travel far with the pupils. We approached parents, friends and the nearest craftsmen in the village. Gradually we found out which professions we could introduce to the pupils. Some seemed very attractive,

others were more common and normal. The pupils were then all the more surprised at how little they knew about them. Here is a list of the professions and a short description of the activities the pupils got to know and try during the project.

POLICEMEN

The police officers arrived at the school in their official car. They asked the children about traffic rules and about riding a bicycle. They showed the children the equipment and functions of the service car and introduced them to the activities of the Police of the Czech Republic. They brought the pupils material for further activities – a memory game and workbooks for small cyclists. The police invited the pupils to the traffic playground and answered all the pupils' questions.



DENTIST

With prior permission from their parents, pupils brought their toothbrush and toothpaste to school. First, a PowerPoint presentation was given in which the dentist introduced basic concepts to the pupils. The pupils learnt how tooth decay occurs, what the doctor has to do, or what is prevention. The doctor showed the children what a dental examination looks like and used a model to demonstrate how to clean teeth properly. After this instruction, the pupils cleaned their own teeth. Then each was given a tablet with a purple dye that reacts to dental plaque. In the mirror, everyone could check how successful their brushing was.

FIREFIGHTER

The firefighter parked a large fire truck in the schoolyard and showed the students its equipment and explained its purpose. He described the work of a firefighter, demonstrated the clothing - special firefighting clothes, helmets, shoes. He discussed with the pupils the principles of safe handling of fire. This was followed by a demonstration in the school yard, where the fireman explained and showed why boiling

oil in the kitchen must not be extinguished with water. This demonstration also caught the attention of the tenants in the nearby rental building who came to listen to the rest of the program with us. Here too the pupils received materials for further independent work at school.



BLACKSMITH

We took advantage of the fact that the parents of one of the pupils have an artistic blacksmith's workshop in the village. We visited the workshop. We went through the workshop under strict precautions, where we saw how the iron is heated in the furnace, how it is forged and how individual products, such as doors or pieces of furniture, are created. Pupils could experience burning an iron mark into the wood. We also looked at the finished products ready for dispatch.



BUILDER

We took the opportunity of a company to visit us with a programme on construction and building a city from building blocks. The pupils themselves defined what buildings and facilities should be in the city. Next, they built it themselves from the blocks. They decided on a city plan, looked for the optimal location and appearance of each building. They decided on the location of transport and infrastructure. Because they were building only one city, it was also a lesson in cooperation and respect for other proposals. Finally, they came up with a name for their city and the country in which it is located.



VETERINARIAN

The school was visited by a veterinarian who first prepared a programme on “How to take care of a dog”. Since this is a village school and almost every family has a dog, this talk was beneficial for the pupils. In the second part, there were examples of specific treatments that the vet demonstrated on her dog. The pupils saw and later also tried on their stuffed animals the treatment of the paw, the removal of the thorn from the paw as well as the cleaning of the ears and nose. At the end, the veterinarian answered the pupils’ questions.



SEAMSTRESS/TAILOR

The work of a seamstress was introduced to the pupils by working with textiles. Pupils made a pattern for trousers for a character of “wassermann”, then cut out the fabric and sewed it on a sewing machine. They tried sewing on buttons, threading a needle and finishing with a backstitch. Some tried different types of stitches on the embroidery canvas. The pupils worked with great enthusiasm and it has to be said that we had to cut some of the work off of the trousers of the novice tailor when they had finished.



POST OFFICE WORKER

Once again, we were pleased to be able to benefit from the cooperation with parents. We visited our village post office where the pupils learned about the activities carried out by the post office employee behind the counter. They saw sending and receiving a parcel and working with cash. They learnt about different forms and safety rules that a cash handler must follow. They reviewed the appearance of Czech coins and banknotes.

LIBRARIAN

We also visited a local library, where we learned about the work of a librarian. She showed the pupils how to wrap books in covers so they don't get damaged. She explained how and why a book catalogue is made and how to search through it. She showed the pupils the computer program she uses to check out and return books. The pupils were also impressed by the arrangement of the different types of books in the room, which serves to keep things neat and tidy.

PUPPETEER

A puppeteer came to school with his puppet show. First, he performed a fairy tale with the puppets. Then the pupils saw everything – puppets, sets and props. Then they tried to "act" short exercises, tried to lead the puppets. They discovered how important it is to work with their voice. They then tried to apply all these skills in their own performance for parents and the public in the community centre in our village. This performance also had crafts as the main theme.





WRITER

A children's book writer visited the school. She brought her latest book with her. The pupils were reading from it together for a while. Then the writer told them about the journey that every future book has to go through – writing the manuscript, proofreading, illustration, cooperation with the publisher, printing, advertising and distribution, discussions with readers and sales. She talked about where she gets her ideas from, how difficult it is to put together a storyline and find a setting for the story. At the end, the students were able to purchase the new book.



FARMER

We visited a nearby farm where some of our pupils' parents work. We walked through the cowshed and looked at the calves. The boys were very interested in the demonstration of agricultural machinery – tractors and harvesters. They really enjoyed the opportunity to sit in the cabin in the place of a tractor driver. The pupils listened to stories about how to take care of cows, how and where they are milked, what they eat and how often. They tried hand milking on a rubber milking machine. They had many questions, which the farmer patiently answered.



TRAVELLER



We found the traveller through the Experts to Schools project. The traveller who visited our school was from Olomouc and specializes in Middle Eastern countries. She brought many photographs to accompany her talk. Her program had a strong ecological accent and the opportunity to see a completely different community of people with a different culture and customs was very enriching. The traveller showed the children the local writing, the way of dressing and introduced them to the food customs. The pupils had many questions, they were interested in questions about the very everyday life of the local people.

TEACHER

We could not leave out this profession. Teachers turned into pupils, whereas the pupils in pairs were given the task of preparing a 10-minute performance in a pre-selected subject according to the timetable. Some did maths, others taught PE or history. The students were surprised at how challenging it was to keep their classmates engaged, interested and disciplined.

CARPENTER

The carpenter came to the school and brought a premade part for the pupils – a piece of a future product. He explained the working procedure to the pupils, instructed them on safety when working with tools. He showed them how to use each tool and what to do with it. The pupils worked with a saw, a rasp, a file and a hammer. Everyone made their own little puzzle.



SHOP ASSISTANT



We also went to a local shop where the shop assistant told us what she had to do in the shop. She explained to the pupils that her job starts with receiving fresh goods every day, pricing them and putting them on the shelves or in the coolers, and then selling them. Finally, there is the daily inventory of sales and ordering of goods for the following days. The pupils were surprised at how much work is hidden “in the back” where customers cannot see it.

2.3 School project A Year not only Outdoors

One full year is an extraordinarily long time in the life of a young schoolchild. It is a very difficult task to guide the pupils through the whole year pointing out the important moments that take place both in the nature and in the society. We have chosen two focus areas for our project:

1. Monitoring changes in the nature

As part of the school educational program, pupils are encouraged to actively monitor the changes that take place outdoors. Regular field trips to the surroundings of the village school directly prompt them to do so. The collection of natural resources, or their subsequent use in arts and crafts, leads to experiences directly connected with nature and their own creativity.

2. Experiencing customs, traditions and activities related to each season

The experience of folk customs and traditions leads to the rooting of a person in a certain space in which they grow up where they are at home. It builds pride and sense of belonging, the concept of home as a wider circle. Knowledge and active participation lead to a deeper understanding of the traditions and history of a particular area.

The individual activities were organized as project days with the theme reflected in several teaching areas. If the aim is active participation and enjoyment, these activities cannot be graded. The evaluation takes place on the level of emotional experience. Therefore, in the final reflection we asked the pupils the following questions: "What did you find interesting? What did you like? What would you like to repeat? What would you tell your friends about? What did you find unusual?"

The activities of the individual project days can be carried out individually - they do not have to be part of a long-term project. The whole project was designed around and focused on four seasons, and the individual sub-projects corresponded to this.

AUTUMN

FOLK FESTIVAL (CELEBRATING APPLES)

In the autumn, we planted a new apple tree in the school garden so that we could watch the tree change over the course of the year. We discussed how we would care for the apple tree and talked about how we could store the apples over the winter. We tried different apple dishes. The children made fruit salad, fruit snacks and made dried apple crisps in the oven. The apples were also used in arts and crafts, the pupils used them to print shapes on paper, painted them, made mosaics and tore apple shapes out of paper. Also in music class, we found some use for apples. The children searched for and learned songs about apples, danced and practiced with apples, learned about whole, half, quarter and eighth notes with them. When reading, they chose texts and read quizzes about apples.



AUTUMN CREATIVE WORKSHOPS

Autumn inspired us to create from natural materials. Children transformed autumn berries, twigs, bark and colourful leaves into houses for elves, garlands of leaves, autumn baskets and hedgehogs. They also used the leaves to make a portrait of the "Autumn family", to decorate kites and autumn bags. There was also an autumn fashion show where the children presented their own models called Leaves, Beets and Pears.



AUTUMN HIKE



Our little tourists went on a traditional autumn hike called "Milovická šlápota". The ten-kilometre trek through the autumn countryside included picking mushrooms and completing natural science tasks. The pupils got to know mushroom species, branches and fruits of broadleaf and coniferous trees, forest animals and their footprints. They also learnt to recognize plants by touch. They built mandalas in groups from objects they found in the forest.

AUTUMN AND PREHISTORY

During an autumn excursion to the open-air museum Archeopark Vřestary, we were able to experience the work of prehistoric farmers with primitive tools. The pupils crushed grain, chopped wood for the winter, cultivated the land and baked flat cakes, gathered autumn fruits, prepared lunch out of them and painted with the help of natural materials.



AUTUMN HOLIDAYS

The pupils have been learning about the festivals celebrated in autumn during their lessons on natural history. These included “Czech Statehood Day” and “Czechoslovak Independence Day”. They also learned about Halloween, originally a Celtic holiday. There was a "Halloween morning" when the pupils did not only study but also played games and carved pumpkins. They were dressed up in scary costumes and paraded around the village in the afternoon. A similar feast of honouring the dead is also known in our country, and so the children also commemorated the "All Souls Day". They made candle decorations, which they placed on gravestone and lit candles on abandoned graves. They went round the cemetery reading the gravestones and looking for where their deceased loved ones lay.



OTHER AUTUMN ACTIVITIES

A competition in flying kites took place on the Milovice playground in windy weather. The locals brought their kites and competed to see whose kite would fly the highest, whose would last the longest in the sky and which kite was the most beautiful. The 4th and 5th graders prepared a reading from the book "The Little Oak Man" for their younger classmates. They successfully combined the reading with dramatized passages and interesting tasks. The school prepared a performance in the cultural house for the Milovice natives at the event "Reunion of Natives". The children recited, danced and acted out a fairy tale and various scenes with autumn themes. As part of this event, an autumn exhibition of children's products was held in the school.



WINTER

ADVENT

The season of Advent this year began on the first Sunday in December, which is called Iron Sunday in Czech. Each week we lit one more candle on the Advent wreath and completed tasks from the Advent calendar. During this period, pupils were introduced to Christmas traditions and customs, such as cutting cherry twigs for St. Barbara's Day. They also learnt about the stories of St. Lucia and St. Nicholas. A St. Nicholas Day party was held at the school with older pupils dressing up as St. Nicholas, the devil and an angel and giving presents to younger classmates.



CHRISTMAS

Before Christmas, we visited the museum of the nativity sets in Třebechovice. We saw nativity sets carved from wood, made of glass, paper, pottery and textiles. We listened to the Christmas story and saw the unique Proboš's nativity scene with 350 figures. We also visited a Christmas decorated church in which the librarian told us about the birth of Jesus and we sang Christmas carols in return. Before Christmas, there were creative workshops (making ornaments, angels, candlesticks), Christmas cookie baking and a Christmas school party. We talked about the customs of our ancestors at Christmas. We let walnut shells float in water, threw a shoe, cut an apple and put a fish scale under our plates. As we do every year, we made Christmas cards and small gifts, which the children and their teacher distributed to local elderly people.



WINTER JOYOUS OCCASIONS

In January, it snowed, so the children could create buildings and paint on the snow. They learned to walk on snowshoes and on cross-country skis and skated on the ice rink in Nový Bydžov. We also went to support the little figure skaters at the Winter Youth Olympics in Nová Paka. Winter requires proper comfortable winter clothing, so we organized a fashion show of warm sweaters, hats, knitted coats and gloves. Yarn was our selected material from which we made interesting products during the winter. For example, in our workshops dedicated to working with wool, we wrapped various objects with wool, made yarn balls and played with them, made pom-poms for a hat or a woollen doll.



WINTER HOLIDAYS

Every year, our school participates in the charity event "The three king's collection". The pupils went to the village with their moneyboxes to collect funds for people in need. On St. Valentine's Day we remembered Valentine's sad story and made cards and gifts for our loved ones. Before Ash Wednesday, a carnival parade walked through the village. We all dressed up in traditional and non-traditional masks, sang folk songs and gave out carnival cakes during the parade. At the end, a short performance in the park near the school ended with the burial of the bass, which symbolized the end of merrymaking and the beginning of lent.



SPRING

SPRING AND EASTER CRAFTS

In spring, we made flowers, animals and Easter decorations out of different materials. The children painted Easter eggs and made gifts for mothers for Mother's Day. There was a spring fashion show with colourful flower models. There was also spring cooking aimed at dishes with fruits and vegetables suitable for the holidays. The children collected spring plants outside and made garlands and decorated a tree in the garden with them. They also used the natural materials to make little houses for snails.



EASTER

Two weeks before Easter, we carried out the ancient goddess of winter Morana with our pupils to say goodbye to winter and welcome spring. Then we prepared for Easter and learned about the origin of this holiday and the traditions and customs of our ancestors during this season. In the "Passion Week" we competed for the most interesting Easter egg. The pupils created original Easter eggs at home decorated with different materials (beads, wax, seeds, natural materials, or textiles) and assessed each other. We also visited the Easter card display at the local library and played Easter games and quizzes.



SPRING IN NATURE

In the school garden, the preparation of the raised beds for spring planting was underway. We sowed radishes and, when the weather warmed up, lettuces and kohlrabi. In spring, the pupils learned about the life of birds of prey and owls, which were brought for demonstration by Mrs. Mazuchová from the rescue station. On Earth Day, the children joined the spring clean-up crews in the village. They cleaned around the school on the village square, but also at the swimming pool.



SPRING SPORTS

Spring is about physical activity. The pupils of the school took part in the McDonald's Cup competition. They prepared for the soccer games with their coach, won first place in the district round in the category of small schools and qualified for the regional round. We also took part in the Easter tournament in Malšova Lhota.



OTHER SPRING ACTIVITIES

In March, we took part in a “Sock challenge” to support children with Down syndrome. Other spring activities included a performance of our pupils in the cultural centre called “A Year not only Outdoors”. The pupils performed a theatre play about what happens in nature during the whole year. The programme was a celebration of the year and its children – Spring, Summer, Autumn and Winter. Before the Day of Burning Witches, the school club was transformed into a magic den, where potions were brewed, scary dishes were made and scary tasks were performed. In the afternoon, the witches and witch doctors went around the village in their spooky costumes.



SUMMER

SUMMER HOLIDAYS

We celebrated Children's Day with other children from nearby small schools in Dobrá Voda. We had fun, played sports and repeated information about road safety, evacuation and internet safety. There were also sweet rewards and medals. Since we are good cyclists, we went to Dobrá Voda and back by bike. On Father's Day, we made a mandala for our dads in the workshops from planks and nails. We also celebrated the Day of Music and organized a Summer Music Festival, during which we sang, played musical instruments, danced and listened to classical music.



SUMMER TRIPS TO SEE ANIMALS AND MORE

Our first trip was to an outdoor theatre performance. We rode our bikes to the Kamenice forest, where the actors of the Dragon theatre from Hradec Králové performed “Rocking Fairy Tales”. After a wonderful performance, we went to a horse farm in Pšánek and then back to school. Another outing was a hike to see the horses again. At the horse farm in Ostrov, we could ride on horseback and see the pens and other

domestic animals. Our last trip took us to the Tongo amusement park. After we enjoyed sports in the amusement park, we visited the exotic animals at the Bezručova School's Nature Centre in Hradec Králové.



A DAY WITH PRE-SCHOOLERS



We prepared a project morning for our future first graders on the theme of summer. They recognized summer-related objects and coloured a summer puzzle. They also folded a paper boat and played games on the theme of summer. They also exercised in the garden.

A SAILORS' DAY

At school we first talked about the sea, read some poems from Jiří Žáček's book "Hello Sea", made a paper boat and talked about the work of a sailor. Then we had a maritime pentathlon. The first task was reading messages in Morse code and the rest of the tasks took place at the swimming pool. We carried water to wash the deck, swam on a mattress to the island, rescued a drowning man and hunted for pearls. After completing all five disciplines, the children were given a map and searched for a treasure.



A DAY WITH PETS

On this day, the boys and girls brought their own pets to school. The garden was full of dwarf rabbits, guinea pigs, hamsters, even snails, a dog and a cat arrived, and as the main attraction we had a horse. We talked about how we take care of our pets, what they like, what their names are and what they can do. Then we took a ride on a horse and watched the "rabbit hop" with hurdles.



GARDEN FESTIVAL

At the end of the school year, we had a garden party where we said goodbye to the pupils of the fifth year. We prepared refreshments for the parents and gifts for the children, children's champagne, games and entertainment. After the party, the parents helped us to set up tents for the evening program and the sleepover of the older pupils in the school garden.



Primary school in Milovice u Hořic

Primary school in Milovice u Hořic (<https://www.miloviceuhoric.cz/zivot-v-obci-1/skola/>) is a small two-class school with five grades. Multiple grades of education in one class is perceived as an advantage for further development of children - the older ones help the younger ones, the younger ones learn from the older ones and acquire the habit of concentration and greater independence. The school focuses on subjects that deal with different art forms and develop children's personality in the framework of children's interest activities.

The school has a school club and a school canteen. From 6th grade, the pupils attend the lower secondary school or grammar school in Horice. We support the sensitive relationship of children to people, to nature, we teach them to protect their health, we lead them to open communication, we develop their ability to cooperate and respect others and we motivate them to lifelong education. We focus on environmental education and support children with special educational needs.

As part of the WAVE-IT project, we carried out two school projects focused on the intellectual outputs of the WAVE-IT project, namely IO1: Didactic Strategies for Entrepreneurship in Primary and Secondary Education and IO2: The European Teacher as Reflective Practitioner. We also participated in the development of a Comprehensive Case Study on the Current State and Organization of Online Teaching in Czech Schools (in 2020 and 2021) and in the development of the methodological material called Practical Recommendations and Educational Interventions to Support Social Entrepreneurship of Teachers in Primary and Secondary Schools and in Teacher Education.

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Appendix 1: School project And it's done – Nine crafts



School project NINE CRAFTS



Final conference
Faculty of Education
Palacký University in Olomouc
9. 11. – 11. 11. 2022

Mgr. Michaela Tomášková, Primary school Milovice u Hořic

Description of the school project

- ❑ Cílem bylo přiblížit žákům mladšího školního věku svět práce dospělých tak, aby si odnesli nejen fakta, ale i prožitky. Nehledali jsme genderovou vyváženost jednotlivých profesí, ani jsme nechtěli komukoli cokoli podsouvat. Nechali jsme vše pouze v rovinné možnosti se s něčím seznámit nebo si něco zkusit.
- ❑ Celým projektem provázely dvě pohádkové postavičky – nešikový Pat a Mat, kteří se pouštějí do různých kutilských pokusů, které končí často nedobře a hlavní hrdinové si vždy musí poradit nějakým neokázalým řešením. Pat a Mat se objevili i v naší školní besídce, kde moderovali program.
- ❑ Všechny jednotlivé projektové akce proběhly v době školního vyučování. Některé byly zpracovány do celodenního projektového dne, ale mnohé naplnily pouze jednu či dvě vyučovací hodiny tak, aby se hodily do vzdělávací náplně určitého vyučovacího předmětu (např. knihovna – čtenářství v Českém jazyce, truhlář – pracovní činnosti, cestovatel/ka – vlastivěda atd.).
- ❑ Pro rodiče a spoluobčany jsme připravili ke Dni matek vystoupení, které se také zaměřilo na povolání. Dobrovolné vstupné žáci rozdělili tak, že část jsme věnovali psímu útulku na krmivo a zbytek jsme použili jako příspěvek na autobus pro všechny žáky na školní výlet.
- ❑ Poslední akcí tohoto projektu byl prodejní jarmark, který se pořádal na konci školního roku. Prodávaly se výrobky žáků, které vznikly v průběhu posledních několika měsíců. Také o tomto výděлку rozhodli žáci sami – shledali jsme velmi motivujícím prvkem to, že žáci vidí za svou práci nějaký konkrétní výsledek.

Conclusion

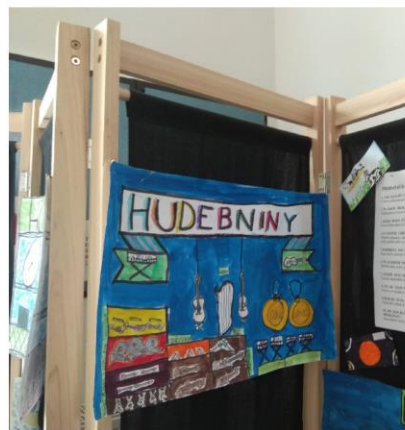
Dlouhodobý projekt přináší žákům kontinuální poznatky určitého směru, což je velmi pozitivní moment v osobnostním rozvoji. Přináší také emoční podněty, podmínky pro spolupráci školy s nejbližším okolím a s rodiči, rozvíjí komunitní myšlení v naší obci.

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Prodáváč
Kuchař



School projects for development of entrepreneurship.

And It's Done – Nine crafts. A Year not only Outdoors

Michaela Tomášková, Alena Jůvová and Ondřej Duda

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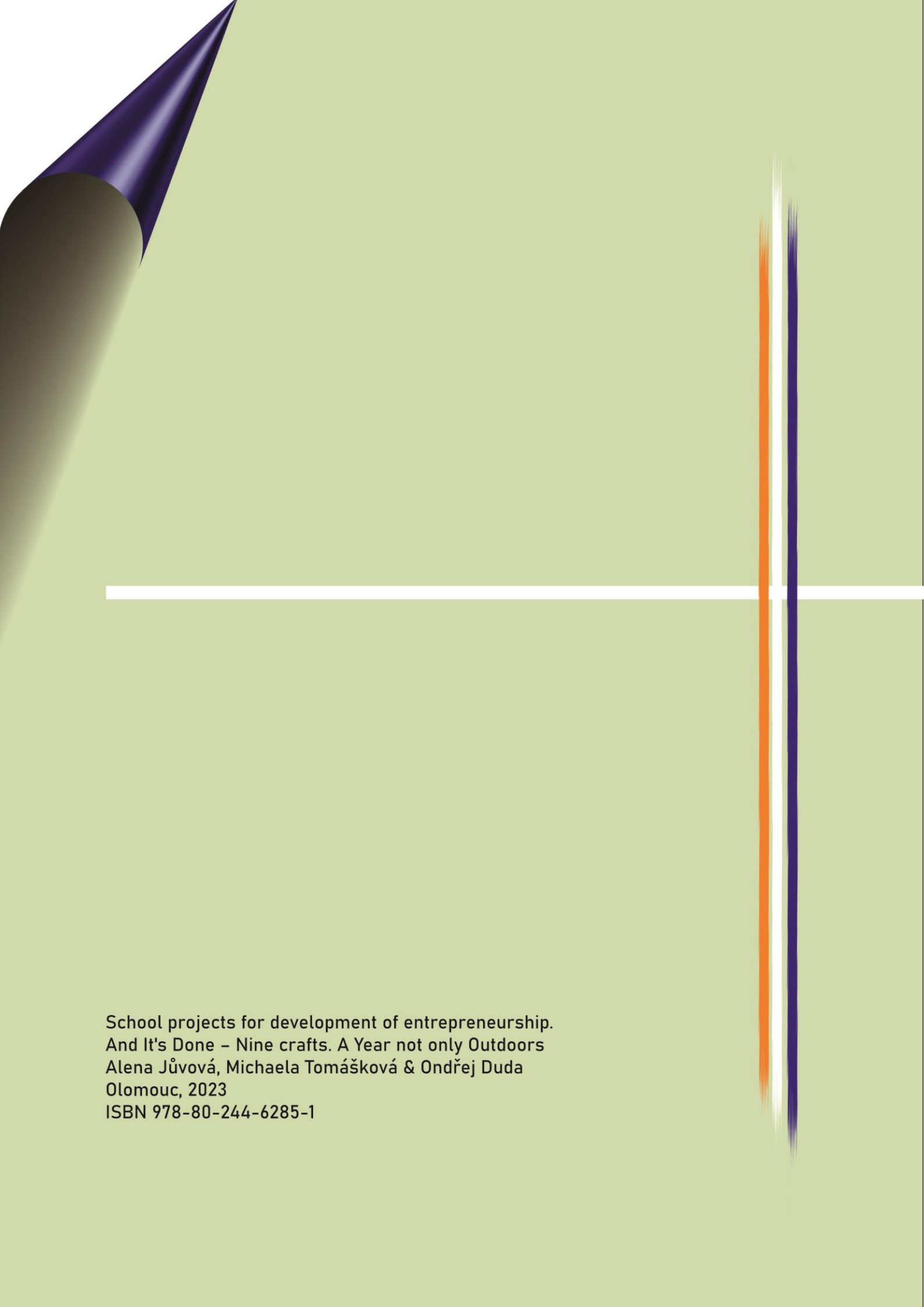
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