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FOSTERING CRITICAL THINKING AND CULTURAL AWARENESS THROUGH A NARRATIVE MODEL IN PRIMARY TECHNOLOGY AND ENTREPRENEURSHIP EDUCATION

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Abstract: This study examines the application of narrative-based learning through folk and fairy tales in technology and entrepreneurship education in primary school. Folk and fairy tales provide children with familiar frameworks through which they explore problem solving, decision-making and social values. By integrating Bulgarian folk tales and world fairy tales into practical tasks, students simultaneously develop critical thinking, cultural awareness and entrepreneurial competencies. A qualitative approach was applied with 67 children aged 9–11 (grades 3–4), combining observation and active participation. The main outcomes included the development of analytical skills, planning and resource management, collaboration, creativity and reflection. The narrative tasks allowed children to connect abstract concepts such as effort, risk and responsibility with concrete, culturally relevant contexts. The study demonstrates that the narratives function as cognitive and cultural bridges, translating abstract knowledge into practical learning, while supporting the development of socio-emotional and entrepreneurial skills. The approach emphasizes collective effort, moral reasoning, and cultural literacy, supporting sustainable learning and the early formation of responsible, innovative, and reflective children.

Keywords: *technology and entrepreneurship education, primary school education, narrative model, critical thinking, culture, storytelling, collaboration, creativity.*

INTRODUCTION

Human beings understand the world through stories. In early childhood, they are told by parents, and later by teachers, relatives, and friends. Humans are inherently storytelling beings; they think through narratives and through sharing them with others.

Storytelling and personal narratives serve as a means of entertainment and variety. In childhood, they provide a path for developing concepts of goodness, courage, honesty, and moral correctness. They allow learning through imagination and emotion, presenting diverse situations with characters and their actions from which children derive important lessons.

However, not everything that happens should be taken literally. The development of critical thinking is essential. Critical thinking teaches children to ask the right questions through stories: “Is this true?”, “Who is telling the story?”, “Is there another way to view this situation?” and so on. This type of thinking helps distinguish facts from opinions and enables a deeper understanding of others’ choices and behaviors. By combining heart and reason, children gradually become perceptive and competent storytellers, while also developing into reflective thinkers capable of feeling, analyzing, making considered decisions, and handling their consequences – much like the characters in folk and fairy tales.

Stories and critical thinking together form one of the most important human skills: the ability to learn from the past, understand the present, and make wise choices for the future.

Against this backdrop, primary education in technology and entrepreneurship may appear to contrast with storytelling. While storytelling cultivates imagination and empathy, technology and entrepreneurial education focuses on numbers, procedures, instructions, rules, and outcomes, with correct and incorrect solutions, strategies, and goals. At times, such education may seem rational, instrumental, or even devoid of human warmth. Yet precisely here lies its potential: when properly integrated, technology and entrepreneurship can become tools for genuine human learning, critical thinking, problem-solving, and analysis of consequences, supporting cultural literacy. In technology and entrepreneurship education, children can learn to combine heart and reason, as they do through stories.

Technology and entrepreneurship education plays a key role in developing fundamental concepts such as labour, technique, technology, entrepreneurship, the material world, production, control, quality, value, and responsibility. In practice, the educational process is often associated with performing specific technological operations, following clear instructions, and constructing or modeling based on technical documentation. Children increasingly engage in technical modeling, yet they are seldom encouraged toward independent, creative processes, reflective thinking on the meaning of activities, the consequences, or the social context of the tasks and learning environment.

Sequences of design and technological tasks should not remain detached from children’s cultural and social context. It is important to avoid a formalistic or mechanical approach to teaching that does not promote deep understanding or meaningful reflection for personal development within a broad cultural framework.

In this context, integrating storytelling as a pedagogical approach addresses the need for instruction to be both technically and technologically structured, while aligning with children’s natural ways of thinking through stories.

Folk and fairy tales are familiar forms through which children engage with meanings, values, and social relations. Their use in technology and entrepreneurship education allows practical tasks to be understood on multiple educational and cultural levels:

- As completion of cognitive and practical tasks;
- As part of a broader cultural and value-based context.

Folk and fairy tales often present human problems, labour activities, and moral dilemmas under conditions of limited resources and choices between right and wrong, expressed in moral dimensions. Their structure typically follows a problem-solving process: problem situation → options → solution → consequences. These features make storytelling especially suitable for integration into technology and entrepreneurship education, where concepts such as problem and solution are central and often linked to real-life situations. Educational content is frequently delivered through productive learning strategies such as problem-based, project-based, inquiry-based learning, or thematic and project work.

The present study aims to present practical experience in primary technology and entrepreneurship education through narrative storytelling. The focus is on facilitating connections between cultural meanings and practical classroom activities. Specifically, it examines how children interpret design and technological tasks embedded within a familiar narrative framework and the role of culture as a mediator between symbolic thinking and real-world action. The research seeks to answer how narrative approaches via folk and fairy tales influence children's understanding of content, motivation, and comprehension of social and value dimensions in primary technology education.

In the humanities, a fairy tale is considered a classical example of a narrative. More broadly, any storytelling can be considered a narrative. In academic contexts, the term “narrative” is more precise than “story,” as it encompasses not only the text but also the process of interpretation and sharing (Milenkova-Kien, 2002).

Narrative-based learning is not new; however, in the context of primary technology and entrepreneurship education, it acquires new significance. The central thesis is that narrative storytelling facilitates the construction of connections between culture and contemporary technological practices, between symbolic representation and practical action.

In this study, culture is understood as a system of shared meanings, traditions, symbols, and values transmitted through Bulgarian folk and international children's fairy tales. For instance, tales such as *Grandfather Pulls the Turnip*, *Plums for Garbage*, and *Kose Bose* illustrate labour, collaboration, persistence, and appreciation of collective effort. They help children recognize similar situations in both learning environments and daily life, linking technological tasks to broader social and value-based meanings. Thus, culture serves both as a background and an active resource for understanding practical activities.

Critical thinking in primary education manifests in child ability to ask questions, seek reasons, identify errors, and evaluate consequences. It occurs in practical

situations where children have to make choices and justify decisions when applying knowledge or completing a technological task. Storytelling provides exactly such situations. For example, in *The Emperor's New Clothes*, children can analyze why characters do not speak the truth and the consequences of absent critical thinking. In *The Three Little Pigs*, critical thinking is exercised through evaluating strategies and choosing materials.

Entrepreneurship at the primary level focuses on developing basic skills and attitudes that form the foundation for later entrepreneurial competence. According to the European EntreComp framework, the Foundation level emphasizes opportunity awareness, experimentation, initial planning, and making small decisions in a safe environment under teacher guidance. How the three competence areas – *resources, ideas and opportunities, into action* – are adapted at this primary level within a narrative-based model is explored in the subsequent sections. Children are encouraged to:

- Identify and express ideas through storytelling and discussion, including scenarios from folk and fairy tales, and games involving choices;
- Explore resources, recognizing available materials and time for activities;
- Plan and organize actions, such as small projects (building a model eco-neighborhood or schoolyard, preparing a mini-exhibition, or organizing a technological game with specific rules);
- Develop a sense of responsibility by allocating tasks and evaluating the impact of their actions;
- Learn collaboration and empathy by sharing ideas, listening, and working toward common goals;
- Take small risks and experiment in safe, controlled activities, incorporating failure as a learning experience;
- Reflect on actions, discussing successes and areas for improvement, fostering self-assessment and resilience.

Folk and fairy tales are highly suitable at this level as they translate abstract ideas about effort, risk, and consequences into concrete, understandable stories. They allow children to assume different roles and foster creativity, empathy, critical thinking, and cooperative skills. Teachers can introduce entrepreneurial concepts, such as small projects, planning, and resource assessment, without requiring formal business knowledge at the primary school stage. Storytelling supports the development of a positive attitude toward experimentation – essential for sustainable entrepreneurial skills and attitudes. By integrating stories and play-based activities, children encounter the foundational stages of EntreComp: from awareness of ideas, through resource organization, to initial project planning and implementation. The goal at this stage is to foster curiosity, initiative, and participation, which later enables more advanced entrepreneurial competencies at higher levels of the framework (Developing, Intermediate, and Advanced). From a practical standpoint, teachers can begin with simple, particular, and controlled tasks that:

- Teach children to recognize opportunities and resources;
- Encourage small group projects, cooperation, empathy, responsibility;
- Introduce choice and consequences;
- Provide opportunities for experimentation and creative solutions.

This sequence develops basic entrepreneurial literacy, encompassing both knowledge and attitudes expressed through willingness to act, collaborate, plan, and learn from mistakes. The primary EntreComp level thus naturally extends children's curiosity and desire for play, while laying the foundation for future entrepreneurial thinking and social responsibility in a broader context.

Contemporary studies show that narrative storytelling contributes to:

- Deeper understanding of content;
- Active cognitive engagement;
- Development of argumentation skills;
- Emotional involvement of children (Robin, 2008; Smeda et al., 2014; Isaacs et al., 2024).

In technology and entrepreneurship education, storytelling serves as a bridge between abstract concepts and practical activities. Theoretical frameworks by B. Bourdieu, L. Vygotsky, and J. Bruner provide complementary perspectives.

- According to B. Bourdieu, schools reproduce cultural models through cultural capital (Bourdieu, 1986). Fairy tales can be viewed as a form of cultural capital accessible to all children.

- According to L. Vygotsky, knowledge is socially constructed and mediated by cultural tools, with language and narrative playing a central role (Vygotsky, 1978). Storytelling functions as a mediator between individual experience and shared social meanings.

- J. Bruner distinguishes between logical-scientific and narrative modes of thinking. While the former characterizes scientific explanations, the latter is natural for understanding the world, especially in childhood. Using storytelling in technology and entrepreneurship education facilitates the comprehension of complex concepts while aligning with children's cognitive characteristics. Learning is seen as constructing meaning, with education integrating culture, not merely transmitting knowledge (González Montegudo, 2011; Egan, 1988).

Narratives provide a structure in which children can interpret characters' actions, compare alternatives, and develop their own strategies. Thus, technology and entrepreneurship education becomes a process of meaning-making, not just task execution. Using storytelling does not simplify content; it aligns with cognitive processes and meaning-making. Bruner emphasizes that education is inseparable from culture (González Montegudo, 2011).

Integrating Bulgarian folk tales situates technology and entrepreneurship education in a cultural context recognizable to children, enhancing motivation and retention. Practical application involves concrete classroom activities that link ab-

stract concepts to real situations. Tales such as *Grandfather Pulls the Turnip*, *Plums for Garbage*, and *Kose Bose* allow children to analyze problem situations, propose solutions, and evaluate consequences.

- *Grandfather Pulls the Turnip*: the problem is the turnip is too large to pull alone; resolution requires cooperation and recognition of collective effort.

- *Plums for Garbage*: the problem is the insufficient resources; the resolution is through creativity, negotiation, and initiative.

- *Kose Bose*: the problem is coercion and fear; the resolution is asserting boundaries, seeking allies, and strategic planning.

These tales combine cognitive and emotional experiences, stimulate critical thinking, and develop entrepreneurial skills such as planning, collaboration, and responsibility.

In summary, narrative storytelling is not merely supplementary tool; it is central educational mechanism integrating culture, knowledge, and social practice. This study presents a model aligned with international trends, enriched by cultural and theoretical grounding in primary technology and entrepreneurship education. Culture functions both as a background and an active resource, enabling children to connect abstract concepts like labour, resources, risk, value, responsibility, and cooperation to meaningful experiences. Folk and fairy tales serve as a bridge between cultural tradition and contemporary entrepreneurial thinking, fostering initiative, resilience, and social responsibility from the earliest educational stages.

METHODOLOGY

The study employed a qualitative approach, allowing in-depth observation of children's experiences, interpretations, and reactions in primary technology and entrepreneurship education through a narrative model in authentic classroom settings. The researcher acted as both observer and participant, providing insight into classroom dynamics and how children interact with narrative and technological tasks. This approach enabled analysis of learning outcomes, meaning-making processes, and the quality of collaborative work.

Data were collected through structured participant observation supported by reflective field notes and documentation of children's products and classroom discussions. The study does not follow an experimental design but adopts an interpretive qualitative perspective aimed at identifying recurring patterns of their engagement, collaboration, and reflective thinking across the implemented lesson sequence.

The study's aim was to gain a deep understanding of the pedagogical potential of fairy tale narratives through a cultural-narrative approach in technology and entrepreneurship education. It relied on pedagogical analysis and the development of specific learning scenarios aimed at enriching children's knowledge and experience.

Key pedagogical principles in applying this innovative model included:

- *Active participation and experimentation*: children are engaged participants, not passive observers;

- *Critical thinking and consequence evaluation*: each task requires analysis of cause-and-effect and justification of choices;
- *Collaboration and teamwork*: ideas are shared, roles allocated, and coordination ensured;
- *Awareness of connections between fairy tale and practical task*: transfer of knowledge from narrative context to classroom activities;
- *Gradual task complexity*: skills and competencies developed step-wise;
- *Reflection and self-assessment*: outcomes are discussed, improvements proposed, decisions evaluated;
- *Integration of cultural context*: popular folk and international tales used as the framework for learning.

The program consisted of interrelated lessons in which different folk and fairy tales supported the development of critical thinking and entrepreneurial culture. A total of 67 children aged 9–11 (grades 3–4.) participated. The lessons involved *The Emperor’s New Clothes*, *The Three Little Pigs*, *Plums for Garbage*, *The Three Brothers and the Golden Apple*, *Kose Bose*, and *Grandfather Pulls the Turnip*.

A brief analysis of each folk and fairy tale is presented from the perspective of its educational potential for developing key competencies in technology and entrepreneurship education: critical thinking, planning, resource evaluation, decision-making, creativity, collaboration, and understanding the relationship between effort and result. For the purposes of teaching, the tales are interpreted as pedagogical scenarios that structure learning situations in which children explore problems, compare strategies, and evaluate the consequences of different choices. The main thematic and conceptual cores of the selected stories are outlined, as well as the ways in which they support the development of critical thinking, planning, sustainability, collaboration, and conscious decision-making. The preliminary analysis contributes to the formation of specific competency domains related to conscious decision-making, critical thinking, planning, sustainability, and collaboration. Each tale provides a concrete context for acquiring and applying these skills through practical and reflective activities.

The Emperor’s New Clothes – competencies domain: apparent and real value

This lesson plays a key role in developing critical thinking. Children analyze the following aspects:

- the role of social pressure;
- the absence of critical thinking;
- the consequences of collective silence.

The practical activity involves working with different textile and non-textile materials through which children explore the difference between aesthetics and functionality. Initially, one group selects bright and decorative materials for the garment without considering its practical applicability. After discussing the real value and functionality of the selected materials, the group redesigns the model by adding

more durable and suitable elements. The result is a more practical product and a well-reasoned presentation of the choices made.

The Three Little Pigs – competencies domain: sustainability and planning

This lesson provides an opportunity to work in depth with concepts such as:

- long-term planning;
- investment of effort;
- product durability.

Children experiment with different materials and analyze why some solutions are more effective than others. One group initially chooses unstable materials, which leads to failure during a durability test. After discussion and reconsideration of their strategy, the children build a stronger construction. Another group tests a different combination of materials and conducts a comparative analysis, discussing why brick models withstand pressure while straw and wooden structures collapse.

Plums for Garbage – competencies domain: labour and collective outcome

The focus of this folk tale is on the social dimension of entrepreneurship. Children realize that results depend on collaboration rather than solely on individual effort. At the initial stage of the group task, children work independently and without coordination, which slows down the collection of materials and leads to a chaotic outcome. After discussing roles and planning the steps, the group organizes the work in stages and more efficiently, successfully completing the task and demonstrating synergy and shared responsibility.

The Three Brothers and the Golden Apple – competencies domain: choices and consequences

This lesson encourages children to analyze different strategies and evaluate which of them lead to success. The emphasis is placed on the quality of choices rather than on chance. Initially, a group of children makes an impulsive decision when assigning roles among the brothers, which results in uneven workload distribution and delays in completing the task. After discussing alternative strategies, the roles are redistributed more effectively, efforts are optimized, and the project is successfully completed. Children analyze the consequences of each decision and justify their choices.

RESULTS

This section presents observations and a qualitative analysis of the effects of implementing the developed narrative-based model in teaching technology and entrepreneurship at the primary school level. The results demonstrate the development of practical skills and the integrated formation of cognitive, social, entrepreneurial, and reflective competencies. Although these findings do not claim statistical generalizability, they reflect significant pedagogical impact, supported by contemporary

research on the role of storytelling and narrative pedagogy in children's development. The results are summarized in several key areas:

- Development of critical thinking
- Cultural awareness
- Entrepreneurial attitudes
- Technological skills
- Social skills
- Motivation
- Reflection

Development of Critical Thinking and Analytical Skills

The most pronounced effect of applying the model is the development of children's critical thinking. Working with narratively structured situations, derived from well-known folk Bulgarian and international fairy tales, stimulates children to analyze the characters' actions, identify cause-and-effect relationships, and formulate reasoned evaluations.

In the lesson based on *The Emperor's New Clothes*, children recognize the superficial value of the garments and discuss the influence of public opinion on human decisions. They compare these actions with their own decision-making when working with materials.

In *The Three Little Pigs*, children evaluate the durability of different materials and discuss the risks associated with various construction technologies.

In *The Three Brothers and the Golden Apple*, critical thinking emerges through the analysis of labour organization, cooperation strategies, and task distribution. A gradual transition from descriptive to analytical statements is observed, indicating that children begin to think in a more structured and reflective manner.

Development of Cultural Awareness and Competencies

Incorporating Bulgarian folk tales such as *Grandpa Pulls the Turnip*, *Plums for Garbage*, and *Kose Bose*, alongside internationally known stories like *The Emperor's New Clothes* and *The Three Little Pigs*, allows children to engage with cultural symbols, traditions, and social norms.

Working with these narratives enables children to recognize cultural values such as labour, cooperation, and responsibility; compare different cultural contexts; connect the characters' actions with real-life situations; and develop empathy and social sensitivity.

Formation of Entrepreneurial Attitudes

The narrative model supports the development of entrepreneurial competencies, including:

- Initiative
- Planning
- Resource assessment
- Responsibility-taking

Children plan their actions, discuss the sequence of steps, and assess available materials.

Development of Technological Skills

The model encourages conscious use of materials, tools, and technologies. Children gain a better understanding of the relationship between:

- Material properties
- Technological processes
- The quality of the final product

Social Skills and Collaboration

Children actively develop social and communication skills. Observed behaviors include:

- Willingness to help others
- Sharing ideas
- Role allocation
- Respect for others' contributions

Motivation and Engagement

The narrative framework increases children's intrinsic motivation. They demonstrate enthusiasm for:

- Discussions
- Practical tasks
- Proposing solutions
- Participating in group work

Reflection and Self-Assessment

Regular discussion of processes and outcomes stimulates reflection. Children increasingly recognize their strengths and weaknesses, propose improvements, and justify their decisions.

Based on the observations and analysis presented above, the main research findings can be summarized as follows:

1. Development of critical thinking
2. Enhancement of entrepreneurial attitudes
3. Development of technological skills
4. Strengthening of social competencies
5. Increased motivation
6. Development of reflection and self-assessment skills

The model and its outcomes confirm that narrative pedagogy and storytelling support the development of critical thinking, motivation, social, and reflective skills in primary technology education.

DISCUSSION

This section interprets the research findings within the context of contemporary pedagogical approaches to teaching technology and entrepreneurship in primary education. The analysis focuses on the role of the folk and fairy-tale narrative as an educational tool that fosters key competencies such as critical thinking, entrepreneurial attitudes, collaboration, and creativity. Special attention is given to the connection between the cultural context of folk and fairy tales and their capacity to structure learning, translating abstract concepts into comprehensible and practically applicable situations through familiar texts. In this sense, storytelling is considered both a pedagogical strategy and a cultural-educational framework for developing technological and entrepreneurial thinking in technology education.

1. Folk and Fairy-Tale Narrative as a Cognitive Framework in Technology and Entrepreneurship Education

One key result of the analysis shows that folk and fairy-tale narratives function as a cognitive framework through which children structure their understanding of technological and entrepreneurial processes in the contemporary world. Folk and fairy tales provide a pre-organized logic – beginning, problem, development, resolution, and consequence. This logic corresponds to that of project-based and problem-based learning.

Abstract concepts such as planning, resources, value, and efficiency are translated into understandable situations where characters' actions have clear consequences. For example, in *The Three Little Pigs*, the choice of materials and the effort invested lead to varying degrees of durability – a characteristic of constructions explored in classroom activities but also an analogy for real technological processes. This framework facilitates the transfer of knowledge from narrative to practice, providing children with a ready mental model that guides their actions.

2. Critical Thinking and Analysis of Consequences

At the primary school level, critical thinking rarely manifests through abstract reasoning. It typically develops through the analysis of concrete situations and the evaluation of consequences. Folk and fairy tales provide precisely such scenarios, which are also well-known. In *The Emperor's New Clothes*, children analyze not only deception but also the social mechanisms that make it possible. Lack of critical thinking is presented as a collective problem. Discussion is provoked around trust, authority, and responsibility – central elements of entrepreneurial culture.

3. Folk and Fairy Tales and the Entrepreneurial Logic of Work

Bulgarian folk tales present labour as a moral and social value. In *Plums for Garbage*, success results from consistent effort and cooperation. Chance or trickery is absent. Such narratives form early value orientations, embedding labour and responsibility in a culturally significant entrepreneurial framework.

4. Collaboration and Collective Effectiveness

Collaboration is central both in folk and fairy tales and technology education. *Grandfather Pulls the Turnip* demonstrates that individual effort alone is insufficient without coordination, teamwork, and mutual support. This principle transfers directly to project-based learning, legitimizing collaboration as an effective strategy for achieving success.

5. Choice, Risk, and Responsibility

The Three Brothers and the Golden Apple emphasizes choice, risk, and consequences. Different strategies lead to different outcomes, allowing children to safely analyze failure and its causes. This supports the formation of responsible entrepreneurial thinking based on risk assessment rather than avoidance.

6. Creativity and Adaptability as Entrepreneurial Skills

Kose Bose exemplifies unconventional thinking and adaptability under constraints. The protagonist relies on intelligence, ingenuity, and creativity – characteristics aligned with contemporary concepts of entrepreneurial innovation. This narrative encourages divergent thinking and exploring multiple solutions in technological tasks.

7. Cultural Identity and Educational Sustainability

Integrating Bulgarian folk tales in technology and entrepreneurship education also contributes to strengthening children's cultural identity. Folk tales are valuable didactic tools and carriers of values, norms, and social models particularly conducive to technology and entrepreneurship learning. Through them, children understand that technological development and entrepreneurship do not exist in isolation from cultural context but are part of a broader social framework. This creates conditions for sustainable education, combining tradition and innovation.

Extended Discussion Summary

Storytelling:

- Support the development of critical thinking
- Foster an entrepreneurial culture based on labour and responsibility
- Encourage collaboration and creativity
- Link cultural heritage with contemporary technological practices

Folk and Fairy-Tale Narrative in the International Educational Context

Internationally, storytelling has long been recognized as an effective educational approach. However, its application in technology and entrepreneurship education at the primary level remains relatively under-systematized. Most studies focus on:

- Language learning
- Socio-emotional development
- Digital skills

The connection between narrative, technological thinking, and entrepreneurial culture is still conceptually developing.

Unlike the Bulgarian educational tradition, where folk tales are deeply embedded as carriers of values, in many international models storytelling is primarily a method for engagement rather than a culturally meaningful framework. This distinction is central to the comparative analysis in this study.

At the international level, entrepreneurship education in primary schools is often implemented through simulations, games, and projects related to mini-businesses, resource management, and problem-solving (Fayolle, Gailly, 2008; Lackeus, 2015). In countries such as Finland, the Netherlands, and Denmark, emphasis is placed on “entrepreneurial thinking,” including initiative, creativity, and sustainable thinking (European Commission, 2016; Jones, English, 2004). In these models, storytelling is mainly used to present entrepreneurial scenarios – narratives of real or fictional entrepreneurs overcoming challenges and achieving success. While effective, these stories often portray entrepreneurship as an individual achievement.

In contrast, Bulgarian folk tales used in this study present entrepreneurial logic differently: success is rarely individual. It is almost always the result of collective effort, labour, shared responsibility, and morally correct behavior. This positions the Bulgarian model closer to the concept of social entrepreneurship (Mair, Martí, 2006; Defourny, Nyssens, 2010).

The Finnish Model and the Role of Cultural Context

Finland’s educational system is often cited as an example of integrating interdisciplinary links and developing key competencies (Lonka, 2018; Niemi, Multisilta, 2016). Storytelling is used as part of phenomenon-based learning, in which children explore real problems across domains. Traditional folk tales are rarely used as primary didactic resources; instead, contemporary stories and problem-oriented scenarios are preferred. In this sense, the Bulgarian approach, integrating folk tales into technology education, offers a unique combination of cultural heritage and competency-oriented learning.

Digital Storytelling and Technology Education

International studies show that digital storytelling supports the development of digital literacy, critical thinking, and communication skills (Robin, 2008; Sadik, 2008; Yang, Wu, 2012). Children create digital stories, videos, or interactive projects to express ideas and analyze problems.

In this study, storytelling is primarily analog but with a clear technological component – working with materials, models, testing, and prototyping. This distinction is important: while digital storytelling develops skills related to using technology as a tool, folk and fairy-tale narratives in technology and entrepreneurship education support understanding technology as content, process, labour, and product.

Cultural Differences in the Interpretation of Labour

In many international models, labour is often presented as a means to achieve individual goals. In Bulgarian folk tales, however, labour is typically portrayed as a moral value connected to honesty, perseverance, and social utility. Such interpretations can be considered in the broader context of cultural differences in value systems and attitudes toward labour across societies (Hofstede et al., 2010; Schwartz, 1999). Working with stories like *Plums for Garbage* or *Grandfather Pulls the Turnip* helps children develop a different value framework for labour – one in which effort, collective action, and cooperation are more important than rapid results.

Storytelling as an Alternative to Case-Based Approaches

International case-based approaches in technology and entrepreneurship education typically use real or fictional situations resembling business or social problems. Folk and fairy tales perform a similar function, but in a symbolic and culturally rich form. Their advantage lies in emotional accessibility for primary school children and their ability to facilitate deeper identification with characters (Bruner, 1996; Zipes, 2012). This makes decision analysis more intuitive and sustainable in the learning process.

Positioning the Bulgarian Model in an International Context

Comparative analysis shows that the model developed in this study can be considered a culturally oriented model of entrepreneurship education, offering an alternative to individualistic entrepreneurial narratives and functioning as a bridge between traditional culture and contemporary educational goals. This perspective aligns with the understanding of entrepreneurship as a socially and culturally conditioned practice, emphasized in the research of J. Mair and I. Martí, as well as A. Peredo and M. McLean (Mair, Martí, 2006; Peredo, McLean, 2006).

Potential for Transfer and Adaptation

Although developed in the Bulgarian context, the model's principles can be adapted to other cultures using local fairy tales and folklore. This opens opportunities for intercultural education and international educational projects (UNESCO, 2015; OECD, 2018).

CONCLUSION

This study explores the potential of a narrative-based model as an effective pedagogical approach in teaching technology and entrepreneurship at the primary school level, with a particular emphasis on integrating folk and fairy tales as culturally meaningful educational resources.

The analysis demonstrates that the folk and fairy-tale narrative serves not only as a complementary and illustrative element of the curriculum but also as a structuring framework that imparts meaning to technological and entrepreneurial activities.

The results of implementing the model indicate that the systematic use of stories such as *The Emperor's New Clothes*, *The Three Little Pigs*, *Plums for Garbage*, *The Three Brothers and the Golden Apple*, *Kose Bose*, and *Grandfather Pulls the Turnip* creates conditions for the holistic development of children. Simultaneous development is observed in critical thinking, entrepreneurial attitudes, technological skills, social and communication competencies, and sustainable reflective abilities. This integrated effect confirms that technology and entrepreneurship education at the primary level should be organized as a meaningfully interconnected process, rather than, as often observed in practice, a sequence of partially isolated practical tasks.

A particularly significant contribution of this study is the reconsideration of entrepreneurship as a cultural and social practice. In the analyzed folk and fairy tales, value is not limited solely to economic outcomes but emerges as a result of labour, responsibility, choice, and interaction with others. This allows children to develop a broader understanding of entrepreneurship as a contemporary process requiring planning, resilience, and moral responsibility in cooperation with others. In this sense, the model aligns with current educational policies aimed at cultivating socially engaged and critically thinking individuals.

The folk and fairy-tale narrative functions as a mediator between abstract educational goals and concrete learning experiences. Through this narrative framework, children more easily understand cause-and-effect relationships, make informed decisions, and transfer acquired knowledge to practical situations. As a result, technological activity becomes a meaningful process and is far less associated with the mechanical execution of specific instructions.

The proposed model can be adapted to different educational contexts, age groups, and curriculum content while maintaining its core logic: learning should be meaningfully engaging, culturally recognizable, and actively involve children.

The study is conceptual and pedagogical in nature. Future research could apply quantitative methods to analyze the outcomes of integrating folk and fairy-tale narratives in technology and entrepreneurship education. Furthermore, given the digitalization of education, it would be valuable to investigate the impact of digital storytelling in this context.

The results indicate that incorporating storytelling into technology and entrepreneurship education helps children better understand and interpret practical tasks. The narrative framework facilitates the connection between specific activities and familiar cultural models and values, contributing to more active participation and a more meaningful learning experience. Storytelling acts as a bridge between symbolic thinking and real action, enabling children to interpret technological activities as both social and value-laden practices.

The narrative-based model in technology and entrepreneurship education demonstrates its effectiveness as an approach that goes beyond the traditional boundaries of subject-based learning. By integrating folk and fairy-tale narratives, an educational environment is created in which children not only acquire knowledge

and skills but also develop positive attitudes toward labour, choice, cooperation, and responsibility – key elements in cultivating active, reflective, and socially engaged individuals.

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НАСЪРЧАВАНЕ НА КРИТИЧНОТО МИСЛЕНЕ И КУЛТУРАТА ЧРЕЗ НАРАТИВЕН МОДЕЛ В НАЧАЛНОТО ОБУЧЕНИЕ ПО ТЕХНОЛОГИИ И ПРЕДПРИЕМАЧЕСТВО

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Резюме: Настоящото изследване разглежда прилагането на наративно базирано обучение чрез приказки в обучението по технологии и предприемачество в началния училищен етап. Приказките предоставят на децата познати рамки, чрез които те изследват решаването на проблеми, вземането на решения и социалните ценности. Чрез интегриране на български народни приказки и световни приказки в практическите задачи учениците едновременно развиват критическо мислене, културна осъзнатост и предприемачески компетенции. Беше

приложен качествен подход с 67 ученици на възраст 9–11 години (3.–4. клас), комбиниращи наблюдение и активно участие. Основните резултати включват развиване на аналитичните умения, планирането и управлението на ресурси, сътрудничеството, креативността и рефлексията. Наративните задачи позволиха на децата да свържат абстрактни понятия като усилие, риск и отговорност с конкретни, културно значими контексти. Изследването демонстрира, че приказките функционират като когнитивни и културни мостове, превеждайки абстрактните знания в практическо учене, като същевременно подпомагат развитието на социално-емоционални и предприемачески умения. Подходът акцентира върху колективното усилие, моралното разсъждение и културната грамотност, подкрепяйки устойчивото учене и ранното формиране на отговорни, иновативни и рефлексивни ученици.

Ключови думи: *обучение по технологии и предприемачество, начално обучение, наративен модел, критическо мислене, култура, приказки, сътрудничество, креативност.*



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