

# AET 2020

Proceedings of the 1st Symposium on  
Advances in Educational Technology

Volume 2

Kyiv - Ukraine

November 12 - 13, 2020

Supported by

**ACNS - Academy of Cognitive and Natural Sciences**

Co-organized by

**MDPU - Bogdan Khmelnytsky Melitopol State Pedagogical University**  
**NULES - National University of Life and Environmental Sciences of Ukraine**  
**UEM - University of Educational Management**

Sponsored by

**KSPU - Kryvyi Rih State Pedagogical University**  
**KNU - Kryvyi Rih National University**  
**IITLT - Institute of Information Technologies and Learning Tools of the NAES of Ukraine**

Copyright © 2022 by SCITEPRESS – Science and Technology Publications, Lda.  
All rights reserved

Edited by Serhiy Semerikov, Viacheslav Osadchyi and Olena Kuzminska

Printed in Portugal

ISBN: 978-989-758-558-6

DOI: 10.5220/0000155000003364

Depósito Legal: 494058/22

[https://aet.easyscience.education/2020/  
semerikov@gmail.com](https://aet.easyscience.education/2020/semerikov@gmail.com)

# CONTENTS

---

## PAPERS

### FULL PAPERS






Assessing Augmented Reality Possibilities in the Study of School Computer Science <i>Vasyl Oleksiuk and Olesia Oleksiuk</i>	5
Comparing Google Lens Recognition Accuracy with Other Plant Recognition Apps <i>Zhanna Bilyk, Yevhenii Shapovalov, Viktor Shapovalov, Anna Megalinska, Sergey Zhadan, Fabian Andruszkiewicz, Agnieszka Dołhańczuk-Śródka and Pavlo Antonenko</i>	20
Construction of an Education Model of Natural Disciplines' Students in the Distance Learning Conditions <i>Nataliia Valko, Viacheslav Osadchyi and Liudmyla Kuzmich</i>	34
Use of Information and Communication Technologies in the Organization of Blended Learning of Future Vocational Education Professionals <i>Svitlana Kucher, Roman Horbatiuk, Olga Serdiuk, Mykhailo Ozhha, Natalia Hryniaieva and Mark Fridman</i>	44
Virtualization Technologies in the Training Future IT Specialists to the Subject "IP Telephony" <i>Maksym Pavlenko, Liliia Pavlenko and Vitaliy Mezhuyev</i>	52
Application of R Programming Language in Learning Statistics <i>Liliia Pavlenko, Maksym Pavlenko, Vitalii Khomenko and Vitaliy Mezhuyev</i>	62
Development of Media Education in Ukraine: Current State and Modern Requirements <i>Iryna Naumuk and Nataliia Valko</i>	73
Features of Implementation of Augmented and Virtual Reality Technologies in the Psycho-correctional Process of Development of Emotional Intelligence of High School Students in Terms of Professional Self-determination <i>Hanna Varina, Kateryna Osadcha, Svetlana Shevchenko and Olena Glazunova</i>	85
Main Determinants of the Use of Cloud Technologies in the Development of Professional Stability of the Future Specialist in the Conditions of Adaptive Learning <i>Hanna Varina, Kateryna Osadcha, Svetlana Shevchenko, Valentyna Voloshyna, Ivan Riznitskii and Aleksandr Uchitel</i>	101
The State of ICT Implementation in Ukrainian General Secondary Education Institutions in 2019 and 2020 <i>Tetiana Vakaliuk, Dmytro Antoniuk and Olga Kalinichenko</i>	115
Trends in the Development of e-Learning for Civil Servants <i>Yevhen Khrykov, Olga Ptakhina, Tetiana Sych, Dmytro Dzvinchuk and Maryna Kormer</i>	126
Perception and Interpretation of Emoji in the Pedagogical Process: Aposterior Features of Artificial Digital Language <i>Rusudan Makhachashvili, Svetlana Kovpik, Anna Bakhtina, Nataliia Morze and Ekaterina Shmeltser</i>	141
Guessing Games Experiments in Ukraine. Learning towards Equilibrium <i>Oleksii Ignatenko</i>	156

The Implementation of Inquiry-based Learning in the Organization of Students' Research Activities on Mathematics <i>Kateryna Vlasenko, Olha Rovenska, Iryna Lovianova, Oksana Kondratyeva, Vitaliy Achkan, Yana Tkachenko and Mariya Shyshkina</i>	169
The Formation of a Successful Personality of Primary School Children during Media Education Implementation (Using Praxeological Tales) <i>Hryhorii Tereshchuk, Iryna Kuzma, Oleksandra Yankovych, Halyna Falfushynska and Iryna Lyakhova</i>	181
Using Personal Smart Tools in STEM Education <i>Yevhenii Shapovalov, Zhanna Bilyk, Stanislav Usenko, Viktor Shapovalov, Kateryna Postova, Sergey Zhadan and Pavlo Antonenko</i>	192
Analysis and Summarization of the Experience of Developing Adaptive Learning Systems in Higher Education <i>Kateryna Osadcha, Viacheslav Osadchyi, Vladyslav Kruglyk and Oleg Spirin</i>	208
Psychological Security in the Conditions of using Information and Communication Technologies <i>Larysa Zhuravlova, Liubov Pomytkina, Alla Lytvynchuk, Tetiana Mozharovska and Valerii Zhuravlov</i>	216
Media Education Technology at Preschool Educational Institutions <i>Volodymyr Chaika, Iryna Kuzma, Oleksandra Yankovych, Kateryna Binytska, Oksana Pysarchuk, Tetiana Ivanova, Halyna Falfushynska and Iryna Lyakhova</i>	224
Features of the Use of Software and Hardware of the Educational Process in the Conditions of Blended Learning <i>Dmitriy Bukreiev, Alona Chorna, Iryna Serdiuk and Vladimir Soloviev</i>	236
Web-based Support of a Higher School Teacher <i>Vitaliy Achkan, Kateryna Vlasenko, Iryna Lovianova, Olha Rovenska, Iryna Sitak, Olena Chumak and Serhiy Semerikov</i>	245
Digital and ICT Literacy Skills as One of the Key Competences of Future Foreign Language Teachers <i>Tetiana Konovalenko, Yuliia Nadolska, Olga Serdiuk, Tamara Poyasok and Andrii Striuk</i>	253
Implicit Potential of Immersive Technologies Implementation in the Educational Process at the Universities: World Experience <i>Kateryna Binytska, Olha Bilyakovska, Oleksandra Yankovych, Galyna Buchkivska, Olena Binytska, Valentyna Greskova, Inna Ocheretna, Oleksandr Burov and Svitlana Lytvynova</i>	264
Opportunities and Ways of using Laboratory Equipment in a Distance Learning Environment <i>Liudmyla Vasylieva, Denys Mikhieienko, Iryna Getman and Maryna Kormer</i>	275
Augmented Reality in the Literary Education of Primary School Children: Specifics, Creation, Application <i>Liudmyla Nezhyva, Svitlana Palamar, Halyna Vaskivska, Olha Kotenko, Liudmyla Nazarenko, Maryna Naumenko and Andrei Voznyak</i>	283
Using Intelligent Agent-managers to Build Personal Learning Environments in the E-Learning System <i>Nadiia Pasko, Oleksandr Viunenko, Svitlana Agadzhanova and Karen Ahadzhanov-Honsales</i>	292
Digital Twin of an Educational Institution: An Innovative Concept of Blended Learning <i>Liubov Kartashova, Andrii Gurzhii, Valentyn Zaichuk, Tamara Sorochan and Feliks Zhuravlev</i>	300

Training Teachers-to-Be to Create Infographics and Its Expert Evaluation <i>Nadiia Olefirenko, Nataliia Ponomarova, Vira Andriievaska, Olena Gulich, Andrii Gaidus and Iryna Lyakhova</i>	311
The Algorithm of Electronic Multilingual Terminological Dictionary Compilation <i>Tetiana Vakaliuk, Oksana Chernysh and Vitalina Babenko</i>	323
Features of Utilization Information and Communication Technology in the Process of Teaching the "Environmental Impact Assessment" Course <i>Iryna Barna, Liudmyla Hrytsak, Halyna Henseruk and Svitlana Lytvynova</i>	332
Organisation of Business English for Specific Purposes Course on Moodle <i>Hanna Shalatska, Olena Zotova-Sadylo, Oksana Balanaieva and Hennadiy Kravtsov</i>	346
Innovative Methods of Information Visualization in Transport Logistics and Training Organization <i>Olena Mikhailutsa, Tatiana Melikhova, Andriy Pozhuyev and Hennadiy Kravtsov</i>	360
Educational Trainings as One of the Effective Forms of Digital Competence Development of Secondary School Teachers <i>Tetiana Hodovaniuk, Tetiana Makhometa, Irina Tiahai, Mariia Medvedieva, Svitlana Pryshchepa and Andrei Voznyak</i>	372
Practical Activity Organization of Primary School Students with using e-Simulators <i>Nadiia Olefirenko, Vira Andriievaska, Nataliia Ponomarova, Olena Gulich, Lyudmila Ostapenko and Iryna Lyakhova</i>	382
Information and Communication Technologies in Application, Dissemination and Evaluation of Erasmus+ Jean Monnet Activities <i>Mariia Galaburda, Olena Kuzminska and Mykola Halaburda</i>	396
Using the LearningApps.org Online Service in the Moodle System in the Process of Training of Specialists in Economic Specialties <i>Roman Horbatiuk, Uliana Dudka, Vitalii Kabak, Liliia Rebukha, Olga Serdiuk and Ivan Riznitskii</i>	403
Peculiarities of using LearningApps Service in the Process of Developing a Motivational Component of Professional Training of Future Professionals in Terms of Adaptive Learning <i>Hanna Varina, Viacheslav Osadchyi, Svetlana Shevchenko, Kateryna Averina and Evgeniy Lavrov</i>	416
Development of Future Foreign Language Teachers' Soft Skills by Means of ICT in Ukrainian Universities <i>Natalia Bondar, Tetiana Konovalenko and Ivan Riznitskii</i>	425
EdTech Landscape in Ukraine: Smart Education Future in Digital Age <i>Maryna Nehrey, Larysa Zomchak and Abdel-Badeeh Salem</i>	434
Moodle Tools for Educational Analytics of the Use of Electronic Resources of the University's Portal <i>Olena Glazunova, Maksym Mokriiev, Olena Kuzminska, Valentyna Korolchuk, Nataliia Morze, Liliia Varchenko-Trotsenko and Roman Zolotukha</i>	444
Integrated Use of the LearningApps.org Resource and Information Devices in the Process of Biology School Course Studying <i>Alla Stepanyuk, Liudmyla Mironets, Tetiana Olendr, Ivan Tsidylo and Maryna Kormer</i>	452
The Current State of using the Cloud-based Systems of Open Science by Teachers of General Secondary Education <i>Maiia Marienko</i>	466

Analysis and Prospects of the Future Teachers Training of the Integrated Course "Natural Sciences" <i>Nataliia Valko and Viacheslav Osadchyi</i>	473
Formation of Information Culture of Vocational Education Specialists <i>Oksana Voitovych, Roman Horbatiuk, Ihor Voitovych, Mariya Shyshkina and Nadiia Shostakivska</i>	480
The Use of Serverless Technologies to Support Data Processing within the Open Learning and Research Systems <i>Ihor Bezverbnyi and Mariya Shyshkina</i>	489
Model of the Competences in Educational Robotics <i>Nataliia Morze and Oksana Strutynska</i>	495
Using Unity to Teach Game Development <i>Vladyslav Kuznetsov, Mykhailo Moiseienko, Natalia Moiseienko, Bohdan Rostalny and Arnold Kiv</i>	506
Expanding Opportunities for Professional Development through the Use of Integrated Teaching <i>Svitlana Bodnar, Viktor Koval, Nataliia Stuchynska, Tetiana Lesina, Larysa Filippova and Antonina Kichuk</i>	516
The Development of Creative Thinking as an Important Task of Educational Process <i>Arnold Kiv, Kateryna Kolesnykova, Tatyana Koycheva, Alina Vinkovska and Ivan Donchev</i>	528
Modern Information and Communication Technologies in Professional Training of Sociology Students: The Mainstreaming of the Needs and Significance <i>Liudmila Kalashnikova, Alla Lobanova, Iryna Hrabovets, Liudmila Chernous, Viktoria Chorna, Yevhen Davydenko and Feliks Zhuravlev</i>	535
Research of Teachers' Occupational Health by Means of Digital Technologies <i>Halyna Meshko, Oleksandr Meshko, Iryna Trubavina, Nadia Drobyk, Vasil Grubinko, Nadiia Bilyk and Nataliia Habrusieva</i>	544
MOOCs Types and Course Development <i>Zarema Seidametova</i>	560
Ensuring the Effectiveness of e-Learning based on Online Technology Analysis of Factors Influencing the Cognitive Independence of Students <i>Evgeniy Lavrov, Viktoriya Logvinenko, Viacheslav Osadchyi, Olga Siryk and Yana Chybiriak</i>	569
Some Geometric Objects Related to a Family of the Ballistic Trajectories in a Viscous Medium <i>Zarema Seidametova and Valerii Temnenko</i>	578
An Inverse Method of the Natural Setting for Integer, Half-integer and Rational "Perfect" Hypocycloids <i>Zarema Seidametova and Valerii Temnenko</i>	584
AUTHOR INDEX	591

# The Formation of a Successful Personality of Primary School Children during Media Education Implementation (Using Praxeological Tales)

Hryhorii V. Tereshchuk<sup>1</sup><sup>a</sup>, Iryna I. Kuzma<sup>2</sup><sup>b</sup>, Oleksandra I. Yankovych<sup>1,3</sup><sup>c</sup>,  
Halyna I. Falfushynska<sup>1</sup><sup>d</sup> and Iryna A. Lyakhova<sup>4</sup><sup>e</sup>

<sup>1</sup>Ternopil Volodymyr Hnatiuk National Pedagogical University, 2 Maksyma Kryvonosa Str., Ternopil, 46027, Ukraine

<sup>2</sup>Ternopil Regional Municipal Institute of Postgraduate Pedagogical Education, 1 V. Hromnytskoho Str., Ternopil, 46027, Ukraine

<sup>3</sup>Kujawy and Pomorze University in Bydgoszcz, 55-57 Toruńska Str., 85-023, Bydgoszcz, Poland

<sup>4</sup>State University of Economics and Technology, 5 Stepana Tilhy Str., Kryvyi Rih, 50006, Ukraine  
g.tereschuk@tntpu.edu.ua, iryna.ihorivna.kuzma@gmail.com, {yankov, falfushynska}@tntpu.edu.ua, lyakhova59@mail.ru

**Keywords:** Successful Personality, Primary School Age Pupil, Technology, Media Literacy, Praxeological Tales, Media Education.


**Abstract:** The article substantiates the relevance of implementing the technology of formation of a successful personality of a primary school age pupil during media education implementation using praxeological tales at primary school. A technology model is developed. The necessity of solving problems of success simultaneously with increasing the level of media culture of a pupil, the formation of key competencies for life, preparation of a child for the life's self-realization on the basis of the partnership implementation of schoolchildren, parents and teachers is proved. The necessity of the embodiment of the pedagogy of heart and the pedagogy of success by spreading the idea about the connection between success and sensitivity, humanity, providing support to those who need it is shown. The results of the latest research on the role of moral values, cooperation in human evolution, the prosperity of society, are reflected. The need for these results discussion with parents and pupils is shown. The diagnostic toolkit for determining the levels of formation of the successful personality of primary school pupils is specified. The effective forms and methods of the schoolchildren education are substantiated: the creation of electronic books, projects "Rules of Success Achievement", "Stories of Success", "Sensitivity and cruelty: which wins?", "Rivalry or cooperation: my choice?", watching movies about successful people with special needs, analysis of media products on the topic of success. The ways of educating parents about the problems of children's success are determined. The results of experimental research are analyzed. The necessity of studying the rules of achieving success on the basis of reading and comprehensive analysis of praxeological tales, improving the content of textbooks in the context of achieving success, increasing interest to children's periodicals is revealed. The formation of a successful pupil is considered as one of the ways to strengthen the Ukrainian state. The necessity of raising the authority of the teaching profession is proved.


## 1 INTRODUCTION


### 1.1 The Problem Setting


In the last decade in the pedagogy of primary education, the problem of success and successfulness has become rather actual. There exist a few reasons for


the interest in these issues. Usually, success is associated with financial independence or wealth. It is known that in Ukraine is not one of the countries with a high level of economic development. One of the ways to overcome poverty lies in developing children's successful personality features. Such education should begin at primary school. The success of a primary schoolchild serves as a start for achievements in high school and a basis for life-long self-realization in the future. In addition, the interest in the success development is due to the introduction of the Concept of a New Ukrainian School (Elkin et al., 2017), the New State Standard of Primary Education (MON,

<sup>a</sup> <https://orcid.org/0000-0003-1717-961X>

<sup>b</sup> <https://orcid.org/0000-0002-1219-8216>

<sup>c</sup> <https://orcid.org/0000-0003-4253-5954>

<sup>d</sup> <https://orcid.org/0000-0003-3058-4919>

<sup>e</sup> <https://orcid.org/0000-0001-7589-8351>

2017), which focus school teachers of the first degree to develop students' initiative and entrepreneurship as key competencies, skills to think critically and creatively, solve problems, organize own activities, which are through skills. The implementation of media education is another important problem of the primary school, the relevance of which in the educational sphere is reflected in the Concept of Media Education Implementation in Ukraine (ms.detector.media, 2016), Typical educational programs. The formation of a successful pupil by means of the Concept enables to solve tasks on the way to success through the development of media culture, information and digital competence. The analysis of scientific sources proves that media is a powerful instrument of influencing personality, but their role in educating a successful pupil is underestimated, especially in the primary school. The imperfection or lack of patterns for imitation in the Ukrainian media, in particular, literary texts, incorrectly placed emphases on values that allow to achieve the goal can be one of the weighty reasons for the acute need of the society in the intellectual elite, effective managers, who would lead Ukraine to the central positions among the states with a high index of human development.

## 1.2 Literature Review

Scientific researches of the problems of forming a successful personality are carried out in several planes: the formation of a successful personality in primary school; the factors to achieve success; the role of the media in forming a successful personality. The significance of childhood success for life self-realization, ways of preventing a loser complex are highlighted by Glasser (Glasser, 1973), who wrote in particular: "It is here [in the primary school classroom] that the child most often forms the lifelong concept of himself as a successful or a failing person. That's why the impact of school failure is so devastating: it attacks and destroys the child's initial identity as a successful person" (Glasser, 1973, p. 39).

Wagner and Ruch (Wagner and Ruch, 2015) have shown the interconnection between character strengths (such as perseverance, self-regulation, prudence, love of learning, hope, gratitude, perspective, teamwork, and social intelligence), positive classroom behavior, school achievements, because "being the nice student" will make the grade in just any subject. "It seems rather that character strengths facilitate achievement-related behavior that then may lead to better school achievements" (Wagner and Ruch, 2015).

Based on the results of this research we can af-

firm that character strengths directly influence on the achieving success in school. But these qualities should be formed and developed.

Important to our research are the ideas of MacBeath (MacBeath, 2012) on the necessity of gaining experience by a pupil to overcome difficulties as a factor of achieving success in the future. In this context, MacBeath (MacBeath, 2012) states: "The experience to deal with failure is a hugely telling indicator of school success and success in later life, the seeds of which are planted early. That every failure is a learning opportunity has gained the status of a cliché, but can only become a classroom reality when failure no longer carries high stakes penalties" (MacBeath, 2012, p. 61).

A thorough analysis of the problem of the six-year-old children's success was conducted by Maksymova (Maksymova, 2013). The scientist substantiated the pedagogical conditions for the achievement of success by pupils in the first grade in their productive activities in the process of subject-subject interaction and identified the diagnostic tools for the development of success.

On the basis of literature analysis, our own research, we have interpreted the concept of "successful personality of the primary school age pupil". It is a pupil whose activity results correspond to the specified goals; which he/she and his/her surrounding consider successful, based on modern social norms, customs, values and standards.

Given the relevance of media education, the researchers investigate the role of the media in forming a successful personality. The reflection of stereotypes about human success in media is shown in (Carr et al., 2008; Grzeszczyk, 2003; Kolber, 2016). Kolber (Kolber, 2016) hereby argues that comparing himself with the ideal created in the media leads to negative consequences (the appearance of low self-esteem, such a person does not feel happy) (Kolber, 2016, p. 79-80). The positive role of the media in forming a successful pupil is reflected in (Alishev and Gilmudinov, 2010; Grynyuk, 2011; Krystopchuk and Yakymchuk, 2018), and others, who, studying the factors of success of schoolchildren in Finland and Singapore, found that the positive ideas of the experience of these countries is the dissemination in the media of the stories of success in the diligent and disciplined study and work environment, systematic reading of books, periodicals (Alishev and Gilmudinov, 2010, p. 245), (Grynyuk, 2011, p. 2).

As the resource base analysis shows, the works of Grant (Grant, 1972), Hill (Hill, 1928), Kuk (Kuk, 2017), etc. are insufficiently popularized in the Ukrainian media. These authors proved that human-



ity, compassion, help to those who need it, allow you to become successful faster than sharp elbows, cruelty and cunning. In the primary school age, children are fond of fairy tales, compose these stories by themselves. But there is a lack of fairy tales, in which the rules of achieving success are determined. Tales in which such rules are reflected are interpreted as praxeological.

### 1.3 Research Question

As the resource base analysis shows, the problem of forming a successful personality of a primary school pupil during media education implementation, in particular by means of fairy tales, in the Ukrainian primary school was not the subject of a separate study.

The *purpose* of the article is to substantiate the technology of forming a successful personality of a primary school age pupil during media education implementation using praxeological tales.

### 1.4 Research Methods

A number of research methods have been used for the achievement of the goal:

- theoretical – functional and structural, interpretive and analytical, contrastive and comparative analysis of literary and informational sources, textbooks for pupils of the first-degree school, through which the researched problem was studied, forms, methods and means of formation of successful pupils were revealed; modeling (for the development of a model of technology for the formation of a successful personality of a primary school age pupil during media education implementation using praxeological tales);
- empirical – observation, questionnaire, survey, confirmatory and forming experiment (children of the second and third grades of comprehensive schools No 16 of Ternopil, No 30 of Khmelnytskyi, Mukachevo Educational Complex “Preschool educational institution – secondary school of the I degree – gymnasium”, Ternopil Educational Complex No 35, Kherson Educational Complex No 7 were involved in the experiment) to check the effectiveness of the technology of forming a successful personality of primary school age children during media education implementation using praxeological tales.

## 2 RESULTS

### 2.1 Media Education Tools for the Formation of a Successful Personality of Primary School Age Pupils

In primary school, due to the relevance of media education, children now know what media is and which media are. Traditional media used by the pupils of the first-degree schools include visual (fiction, textbooks, newspapers, magazines, pictures, photographs), audio (radio), audiovisual (theater, television programs). Innovative ones include a computer, a tablet, a mobile phone, the Internet, etc. But, unfortunately, as evidenced by the analysis of scientific sources, empirical studies, their ability to form a successful pupil is used only partially.

The textbooks for primary school (“Literary Reading”, “Ukrainian Language”, “Mathematics”, “I am in the World”, “I Explore the World”) were analyzed in terms of the success problems reflected in them. Of all the educational books, only in the textbook by Nadiia M. Bibik “I am in the world” for the 3rd grade various aspects of successful activities are sufficiently thoroughly presented. In particular, the social and value orientation of certain goals (the story “What to be?”), the formation of the qualities of successful person (“Human virtues”, “How to succeed”) is reflected. After reading these stories, primary school pupils learn that a person is born to leave a trace behind himself/herself – in memory, in the hearts of other people; need to learn to live for people; to achieve success in life one needs to be hard-working, persistent, not postpone what can be done today, and even anger and rudeness prevent you from achieving a desirable (Bibik, 2014, p. 26, 29, 33, 70). Here is an example of the inventor Edison, who was an extremely hard-working man. There was a ninety (!) per cent of work in the sweat of his brow reflected in his inventions. The rest relate to talent, inspiration, intuition, and other coincidences (Bibik, 2014, p. 29). In this textbook, the economic aspects of success (economy, thrift) are reflected (Bibik, 2014, p. 74). However, in general, in educational books for the primary school, the problem of success is reflected rarely, fragmentarily without respect to the principle of continuity. We did not detect the texts where the children were taught the art of defining goals and analyzing their achievements, overcoming obstacles, how to communicate properly, to treat time with cautious, to help friends, although such knowledge is essential for the formation of a key competence for life – the

ability to study.

The fragments of the materials on success are partially presented in fiction, children's periodicals.

In periodicals and books, Ukrainian folk art is presented, in particular, the proverbs, sayings, acting on the development of a child completely opposite. On the one hand, they warn against ambitious plans: "Who flies high, falls low", and on the other, they call for persistent work that suits the vocation.

There are extremely few stories that would form the winner, the builder of the Ukrainian state.

In Ukraine (and this is proved in (Danyliak, 2017; Semeniako, 2016)) periodicals, fiction give way in the struggle for a little user to television, a computer, a tablet, a mobile phone. Unfortunately, there are not so many examples of success. In addition, there is no substantiated system of work for the formation of the success of a primary school pupil by media tools.

The analysis of media tools for the formation of success allows us to conclude that it is necessary to create a new media product that would be interesting, instructive, would meet modern trends in achieving success. We have created praxeological tales – fairy tales in which animals share their recipes for success.

## 2.2 Praxeological Tale as a New Means of Forming a Successful Pupil

Until recently, there was the rule (popular among people and broadcast in the media) that strong authoritarian persons who had no pity or compassion for others became successful. Only business and nothing personal – the heroes of the movies like to repeat. However, such rules of life are survivals of the last millennium. Modern research (Grant, 1972; Kukk, 2017) proves that those people who care about others become successful the fastest. In particular, the Christopher Kukk's book points to a common mistake of children who believe that it is impossible to be successful and help people at the same time (Kukk, 2017, p. 16). That is why the society is becoming so hostile. However, exactly sensitivity is that value that contributes to the achieving the goals. There is a biological basis for such a conclusion. Studies of the DRD4 gene, which is responsible for dopamine production, show that the level of success in school depends on the atmosphere of sensitivity in the classroom (Kukk, 2017, p. 12). Cooperation, but not competition, has been a leading factor in evolution. The society in which there is a mutual support has better chances of prosperity and survival.

These and other trends of success are reflected in praxeological tales. In particular, a fairy tale "The Best in the Forest" is about the Striped Tiger, who had

many friends: a Hare, a Squirrel, a Hedgehog, an Elk, a Wolf, a Wild Boar and other animals. The Striped Tiger helped them all and received gifts from them from time to time. Everyone felt comfortable, until one day an Owl decided to organize a competition in order to identify who is the fastest, the prettiest and the smartest of all... That's when the real battles broke out.

All possible titles in the competition among other residents of the forest were won by the Tiger. He was the fastest, the best at long jumping, the most handsome and the smartest.

The beasts began to envy. The Fox decided that there was some monkey business and accused the Tiger of bribing the judges. The Wolf was desperately looking for the gang ready to pour green paint onto the fine Tiger's fur in order to prevent him from boasting. And the Elk was gossiping about the Tiger as not being the smartest.

The Tiger found himself on the crossroads, felt puzzled whether to get upset or to be happy. How many friends he had lost, and how many enemies he made. The Owl advised what to do: continue to do good and the forest will change for the better (Kuzma, 2019).

So, the main lesson of the fairy tale is to help friends, despite their envy, unjust accusations and actions. He who is the winner, and even though usually faces difficulties, should help his friends even more.

An important rule of success – to do good deeds – is also embodied in the fairy tale "How to become a king of beasts". The fairy tale tells about the little Bear Cub (awkward, unskillful). He wanted to become successful and went to ask for a Lion's, the King of Beasts, advice.

And he got the answer: "You won't believe it, Cubby! But I went through that all like you when I was a kid. Other animals did a number on me too. And then I decided to help someone every single day, someone who is more vulnerable than me. At first, I helped a Mouse, then – a Squirrel, then – a Fox and afterwards – a Wolf. And I felt myself so strong that now I'm not afraid of any beasts!!!" (Kuzma, 2019).

Children learn that everyone has his/her own path to success. But it cannot be overcome without good deeds. You can become successful, authoritative by helping friends, those who find it difficult to overcome obstacles.

However, in the process of forming the pupil's success, the praxeological tale is only one element of the system complex work that needs to be done. Grounding the system of work on the formation of the primary school pupil's success using traditional and innovative media tools, including praxeological

tales, remain relevant.

### **2.3 Model of the Technology of Forming a Successful Personality of a Primary School Pupil during Media Education Implementation (Using Praxeological Tales)**

To determine the level of formation of a successful personality of primary school pupils, to prove the work system in this direction, using media education, a study involving 160 pupils of schools in the cities of Ternopil, Khmelnytskyi, and Mukachevo was conducted. The results of this research were highlighted in the article (Tereshchuk et al., 2019).

Pupils were asked to answer the questionnaire.

A list of questions and answers to them (children could choose several answers to questions 2, 4, 5) is shown in table 1.

Therefore, it was found that 85.6% of children consider themselves successful (almost the same number consider their parents to be successful, since for 73% of the respondents their parents themselves serve as examples of success), but only a third of the respondents properly understand the concept of “success” (achievement of the planned result), and another third is mistaken in the interpretation of “success”, considering that a successful person is one who has many activities, regardless of the result they get. According to the respondents, the leading qualities necessary to succeed are self-confidence, diligence and persistence. At the same time, before the forming stage of the experiment and reading praxeological tales, pupils did not mention sensitivity as a quality necessary for success.

Positive aspect may be found in the fact that mom and dad serve as an example in achieving success to their children. But, unfortunately, rarely (for 6.9% of children) it is a teacher. Children receive information about their success mainly from television programs, the Internet and from teachers. This result is not surprising since television and the Internet are the most popular media among pupils. However, in the context of achieving success, the need to improve the content of textbooks, increasing interest in children’s periodicals, writing and reading fairy tales on the themes of success, raising the role of sensitivity, kindness as qualities necessary for achieving goals, as well as system work of parents and teachers, aimed at creating media production by children, which would aim them at success.

The analysis of educational and methodological publications, scientific literature, children’s media,

empirical research has shown the need for improving the technology of formation of a successful personality of the primary school age pupil during media education implementation (Tereshchuk et al., 2019), first of all due to creation in class teams the environment of sensitivity, kindness; studying, independent writing of praxeological tales. This technology ensures systemic work, the relevance of which is revealed at the stage of the survey of children. In modern science, technology is usually referred to as information and communication and media education technologies. However, it is also advisable to call technology as such a learning process, which has the characteristics of technological feasibility: systemic, diagnostic, algorithmic, reproducible, predictive (the results of an activity match a certain goal), as well as the following structural components: conceptual and target, content, procedural and result-analytical.

To substantiate the diagnostic tools of the investigated technology, which allows us to check whether a high and sufficient level of formation of a successful personality of a primary school pupil is ensured, the work of scientists on diagnostics of competences of primary school pupils have been analyzed, in particular media literacy, as well as the results of empirical research.

In the technology under study, the criteria for the formation of a successful personality of a primary school pupil during media education implementation are determined the value-oriented, cognitive and communicative, activity and creative, evaluative and analytical (Tereshchuk et al., 2019). Characteristics of the indicators of the levels (high, sufficient, low) of the formation of a successful personality of primary school pupils during media education implementation in accordance with the justified criteria are reflected in table 2.

The pupil of a high level of formation of a successful personality can set goals, establishes the relationship between the success of the heroes and their values; is aware of the main concepts of success, the stages of successful activity, communicates well on the topic of media success, demonstrates the positive dynamics of educational achievements; models successful heroes, writes small and creative works, fairy tales on his/her own, creates projects and drawings, worries about his/her health, without abusing the length of contacts with the media, uses media innovations to improve the level of success; adequately determining the level of success, determines the prospects of self-development using the ideas of media education.

A pupil of a sufficient level, unlike a representative of a high one, makes insignificant mistakes in

Table 1: List of questions and answers of the pupils to a questionnaire.

Question content	a)	b)	c)	d)	e)	f)	g)	h)	i)
1. Who do you consider as a successful person?	earning a lot of money 16	achieving what was planned 50	respected by other people 36	has a lot of different activities 58	other variants				
2. What features are inherent to a successful person?	self-confidence 95	persistence 92	diligence 90	sociability 23	other features (write them)				
3. Do you consider yourself a successful person?	Yes 137	No 23							
4. Who is the example for you to succeed in?	hero of a fairy tale or a story (write who) 16	person you heard about from the TV (write who) 11	mom, dad 117	a teacher 13	there is no example to succeed 3	other variants			
5. Where do you get information about success and successful people from?	school textbooks 17	children's magazines and newspapers 6	fiction 6	TV programs 51	radio programs 1	the Internet 48	teachers 45	parents 32	Theatre performances 6
6. Choose your sex	Male 82	Female 78							

goal-setting, establishing the relationship between the success of the heroes and their values; in the interpretation of concepts in the field of success and successful activity, talks about the success of heroes in the media depending on the situation; the level of educational achievements is either unchanged or a slight increase is observed, creates media production (fairy tales) on the topic of success with the help of adults and peers, situationally showing creativity, does exercises periodically and adheres to the success tips found in the media, sometimes violates media usage rules; makes errors, defining the level of success, defines the prospects of self-development using the ideas of media education with the help of a teacher.

As for the low-level children, they are not able to set goals, do not track the connection between the hero's values from the media and his success, have elementary knowledge of success and successful activity or lack of this knowledge, the level of academic achievement is either unchanged or decreasing, has no model for imitation, sometimes creates a media product about success with the help of adults without creativity, often violates media usage rules, cannot and does not want to adequately determine its level of success and the prospects of self-development.

The feasibility of some of the indicators can be doubtful for some reasons. For example, why it is so

important for a successful person to follow the rules of safe conduct while working with a computer; restrict yourself to accessing modern technical devices: a tablet, gadgets, a mobile phone. However, the very safe, rational use of the media makes it possible to preserve the physical, mental, spiritual health that is necessary to succeed.

To determine during the experimental study the levels of the formation of children's media literacy, a set of diagnostic methods was proposed: observation, questionnaires, surveys, analysis of the products of the child's activity (modeled ideal, project about success). Ultimately, the level of formation of media literacy was determined on the basis of the expert judgment method (the experts were a teacher, a representative from parents, the pupil, who carried out self-assessment). In this case, the child was able to gain maximum 2 points on the level of expression of the motivational and value criteria indicators; 4 points – cognitive and communicative with activity and creative; 2 points – evaluative and analytical (total 12 points). Representatives of the high-level gain from 9 to 12 points; medium – from 5 to 8 points; low – from 1 to 4 points. This corresponds to the traditional three-point scale (3 points – high, 2 – medium, 1 – low) of the formation of competencies.

After conducting the confirmatory experiment, it

Table 2: Criteria and indicators of the formation of a successful personality of pupils of primary school age.

Indicators of the formation of primary school age pupils' progress	Criteria for the formation of a successful personality
<ul style="list-style-type: none"> <li>• Setting the goals (determined, determined without complying with the rules of goal setting, non-determined);</li> <li>• the level of differentiation of moral and ethical values, judgments about the achievement of success (based on the definition of good and evil characters in the media, good and bad deeds; qualities that allow becoming successful): deep evaluative judgments, different degrees of the depth of evaluative judgments, evaluative judgments about the behavior of the characters of the media are largely absent.</li> </ul>	Valuable and target
<ul style="list-style-type: none"> <li>• Level of awareness of the types and functions of the media;</li> <li>• level of awareness of success, stages of successful activity;</li> <li>• level of communication on topics of success in the media (high, sufficient, low ability to polysubject interaction)</li> <li>• the dynamics of educational achievement levels.</li> </ul>	Cognitive and communicative
<ul style="list-style-type: none"> <li>• Activity level of actions (high, medium, low);</li> <li>• the level of creative activity and independence during the creation of media products (first of all fairy tales) on the theme of success (the ease of inventing constructive ideas and their independent realization, situationally in the production of creative ideas and implementation with the help of adults and peers, the rarity in the production of constructive ideas under the influence of adults and peers);</li> <li>• the level of realization in the life of innovations from the media about success: overcoming obstacles, performing exercises to increase the success rate (constantly, occasionally, never);</li> <li>• the level of formation of the ability to adhere to the rules of safe behavior when working with a computer; restrict yourself to accessing modern technical devices: tablet, gadgets, mobile phone (high, sufficient, low).</li> </ul>	Activity and creative
<ul style="list-style-type: none"> <li>• Analysis of own level of success (adequate with argumentation, with errors in the argument, overestimated or undervalued without arguments);</li> <li>• setting the prospects for increasing the level of formation of success (expressed skills, partially expressed, absent).</li> </ul>	Evaluative and analytical

was found out that 17 (10.6%) children are at high level, 78 children (48.8% – on medium), 65 children (40.6%) – on a low level of formation of a successful personality. It was found that the level of success could be higher due to the development of media competencies and the positive dynamics of educational achievements.

The analysis of the results of the confirmatory experiment, scientific and educational and methodical

sources made it possible to improve a model of the technology of formation of a successful personality of a primary school age pupil during media education implementation, supplementing it with an innovative media product – a praxeological tale (figure 1).

Its purpose (formation of a successful personality of a primary school age pupil) corresponds to legislative acts, educational concepts, the State standard of primary education. Based on the main principles

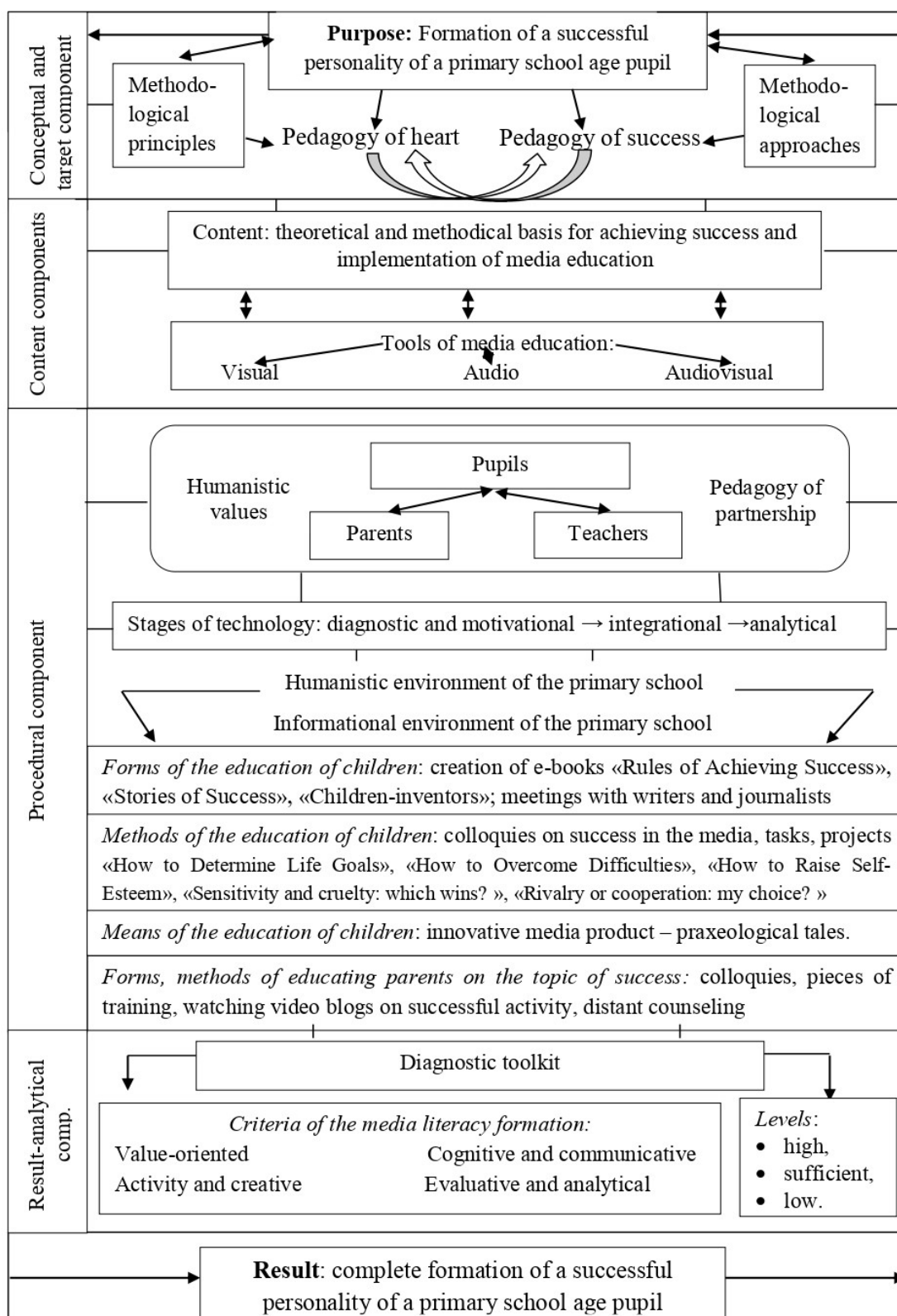


Figure 1: Technology of formation of successful personality of a primary school age pupil during media education implementation (using praxeological tales).

of these documents, methodological approaches (systemic, personal, humanistic, informational) and principles are determined (respect for national traditions, the priority of moral and ethical values, aesthetic inspiration). The model of technology reflects the need for the implementation of the pedagogy of the heart and the pedagogy of success, the main ideas of which are grounded in (Łopatkowa, 1992; Sukhomlinskii, 1962). In our study, the implementation of the pedagogy of heart means that every child should feel the love and care of teachers, parents and classmates: a minimum of competition and maximum of trust, and confidence in the success of each child; at the same time, each pupil feels the need to help peers, older people.

The content component of the technology embodied the theoretical and methodological foundations of success, media education tools. The elements of the procedural component are the algorithm of the actions of the participants of the pedagogical interaction (pupil, teachers, parents) acting on the principles of partnership pedagogy; forms of education for children (the creation of electronic books “Rules of Success Achievement”, “Stories of Success” that ensure continuity in the formation of success), methods (conversations about media success, exercises, projects “How to determine life goals”, “Sensitivity and cruelty: which wins?”, “Rivalry or cooperation: my choice?”, “How to overcome obstacles”, “How to increase self-esteem”) and forms and methods of working with parents (conversations, pieces of training).

Diagnostic tools (criteria, level indicators) make it possible to verify the effectiveness of the technology under study.

## 2.4 Organization and Analysis of the Results of Experimental Research

In order to test the effectiveness of the designed technology, a forming experiment was carried out during 2018 (the first stage, which involved the introduction of the technology of formation of successful personality of a primary school age pupil during media education implementation) (MON, 2019); 2019–2020 (the second stage, during which the improved technology of formation of successful personality during media education implementation was introduced; it was based on the use of praxeological tales as innovative media products, improving the moral and psychological climate in the children’s team, strengthening the humanization of pupil relationships).

Since it is impossible to investigate all the types of activities involving children (someone is success-

ful in one activity, and someone else in another), we have stopped on the leading types: studying, media education activities of the primary school children and their self-improvement activities. Control (106 persons) and experimental (104 persons) groups of the third-grade pupils (four classes in each group) of comprehensive schools and educational complexes of Ternopil, Khmelnytskyi, Mukachevo were formed, and the level of formation of their success was diagnosed (the results of the diagnosis are presented in table 3). Traditional forms and methods of forming success were used in control groups, in experimental, however, the developed technology, which provides for the strengthening of the humanization of relations between pupils; praxeological tales as an innovative component, was introduced.

The implementation of the technology was preceded by a preliminary work with the teachers of the experimental classes that received a specially designed educational methodological textbook for raising their level of competence in the field of educational technologies, in particular, media education, information and communication, and the organization of successful activities (Kuzma, 2019; Łopatkowa, 1992; Yankovych et al., 2020). For teachers, colloquies and counseling were conducted. Students of Ternopil Volodymyr Hnatiuk National Pedagogical University and Khmelnytskyi Humanitarian and Pedagogical Academy were involved in the measurement of the results of the study.

As the technology provides for the formation of a successful personality of primary school pupils, along with the implementation of media education, the formation of key competences for life, in the experimental classes, pupils’ knowledge of the media, their types and functions, information search, copyright, safe use of digital media, media communication ethics etc. has deepened.

Differences in the formation of a successful personality between control and experimental groups of children were revealed during the lessons of “Literature Reading”, “Ukrainian Language”, “I Explore the World”. In the process of studying each subject in the experimental classes, attention was focused on the problems of success (for which the corresponding texts were selected). Particular attention was paid to the ability to overcome obstacles and the ways to overcome difficulties were discussed. During the experiment, acute topics were considered, in particular about envy and sincere joy for the success of friends, whether it worth to create an ideal and follow it, etc.

The most effective forms of working with primary school pupils were the creation of electronic books on successful children, watching films about the suc-

Table 3: Dynamics of the formation of successful personality levels of primary school age pupils.

Levels	Control group		Experimental group	
	Before experiment	After experiment	Before experiment	After experiment
High	11 (10.4%)	13 (12.3%)	10 (9.6%)	24 (23.1%)
Sufficient	51 (48.1%)	54 (50.9%)	50 (48.1%)	59 (56.7%)
Low	44 (41.5%)	39 (36.8%)	44 (42.3%)	21 (20.2%)

cess of people with special needs, including the author of the book “Life Without Limits” (Vujicic, 2012) an American Nick Vujicic, Italian singer who lost his eyesight, Andrea Bocelli, a Ukrainian artist Dasha Bezkostka, who having infantile cerebral palsy, draws pictures using her toes, etc. Effective methods include an analysis of the behavior of heroes of stories, praxeological tales; the justification of which features of the character can help to achieve success, creation and discussion of various projects, primarily “How to determine life goals”, “Sensitivity and cruelty: which wins?”, “Rivalry or cooperation: my choice?”

In both control and experimental groups, the formation of key competencies among pupils took place in accordance with the Concept of the New Ukrainian School (Elkin et al., 2017), the State Standard of Primary Education (MON, 2017). Their formation is undoubtedly an important factor in achieving success. So, during the experiment, we predicted an increase in the formation of a successful personality in both control and experimental groups, which eventually happened.

According to the results of the forming experiment, 23.1% (24) of the respondents of the experimental groups were at a high level; 56.7% (59) – at a sufficient level; 20.2% (21) – at a low level.

In experimental groups, the percentage of children with a high level of successful personality development (from 9.6% to 23.1%) has increased, and the percentage of a low level has decreased (from 42.3% to 20.2%).

In control groups, there was an increase in the number of children of the high level of formation of a successful personality by 1.9%, of sufficient – by 2.8%. The number of low-level representatives decreased by 4.7%.

The increase in the formation of a successful personality of pupil in experimental groups was due to skillful goal-setting, awareness of the value of media education for life success, the formation of knowledge about success, successful activity, the creation of media production on successful activities – fairy tales about success, e-books “Rules of Success”, “Stories of Success”, “Children-inventors”; the analysis of works in which a life ideal is represented; projects “Sensitivity and cruelty: which wins?”, “Rivalry or cooperation: my choice?”, as well as due to chil-

dren’s compliance with the media usage rules; also through the study of praxeological tales, the creation of an environment of mutual support and assistance in the classroom. Positive impact on the results of the experiment also had the introduction of the pedagogy of heart, humanization of relations in the classroom, increasing the level of formation of children’s teams, raising the level of media culture of parents, their awareness of the problems of upbringing a successful child.

Indicators of pupils who were less subject to changes are the dynamics of the levels of academic achievement of pupils; the level of their communicativeness and creativity, the definition of the prospects for self-development.

### 3 CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

Formation of a successful personality of a primary school pupil during media education implementation using praxeological tales helps to solve several actual tasks: to increase the level of media culture of a pupil, to form key competencies for life, to prepare a child for the life’s self-realization, which in the end should contribute to the strengthening of the Ukrainian state in future.

Praxeological tale is a fairy tale, which reflects the basic rules, factors of achieving success. The connection between success and sensitivity, humanity, providing support to those who need it (that one who shows humanity, the ability to help achieves success faster and easier) is one of the leading ideas of these tales.

The research has proved the effectiveness of the implementation of the technology of formation of a successful personality of a primary school age pupil during media education implementation using praxeological tales. In experimental groups, the percentage of children with a high level of successful personality development (from 9.6% to 23.1%) has increased, and the percentage of a low level has decreased (from 42.3% to 20.2%).

Praxeological principles of the formation of the



content of primary education are the prospects of further research.

## REFERENCES

- Alishev, T. and Gilmudtinov, A. (2010). Singapore experience: Creation of a world level education system. *Educational Studies Moscow*, (4):227–246. <https://vo.hse.ru/en/2010-4/98012271.html>.
- Bibik, N. M. (2014). *I am in the World. The 3rd grade*. Osnova, Kharkiv.
- Carr, A., Kariyawasam, A., and Casil, M. (2008). A study of the organizational characteristics of successful cooperatives. *Organization Development Journal*, 26(1):79–87.
- Danyliak, R. Z. (2017). *The Ideas of Moral Education of Primary School Pupils on the Pages of the National Children's Periodicals (late 20th – early 21st centuries)*. PhD thesis, Drohobych Ivan Franko State Pedagogical University, Drohobych.
- Elkin, O., Hrynevych, L., kalashnikova, S., Khobzey, P., Kobernyk, I., Kovtunets, V., Makarenko, O., Malakhova, O., Nanayeva, T., Shiyani, R., and Usatenko, H. (2017). *The New Ukrainian School: conceptual principles of secondary school reform*. <https://mon.gov.ua/storage/app/media/zagalna%20serednya/Book-ENG.pdf>.
- Glasser, W. (1973). Highlights from schools without failure. *Educational Horizons*, 52(1):39–42. <http://www.jstor.org/stable/42924062>.
- Grant, A. D. (1972). The personality characteristics of acceptors and rejectors of the newer educational media among secondary teachers of wisconsin. *British Journal of Educational Technology*, 3(2):129–136.
- Grynyuk, S. P. (2011). Steady work: how finns built a successful system of education. *Bulletin of Postgraduate Education*, (5):57–64.
- Grzeszczyk, E. (2003). *Success: American patterns – Polish realities*. Publishing house IFiS PAN, Warszawa.
- Hill, N. (1928). *The Law of Success in 16 Lessons*. Tribeca Books.
- Kolber, M. (2016). Wirtualna koncepcja człowieka sukcesu – codzienność – rzeczywistość szkolna (Virtual concept of a man of success – daily life – school reality). *Przegląd Pedagogiczny*, (2):78–87. <https://tinyurl.com/eyukawks>.
- Krystopchuk, T. and Yakymchuk, I. (2018). Mediaosvitni tekhnologii yak zasib pidvyshchennia yakosti osvithnoi diialnosti koledzhu (Media education technologies as a means of improving the quality of college's educational activity). *Nova pedahohichna dumka*, (1):50–53.
- Kukk, C. L. (2017). *The Compassionate Achiever: How Helping Others Fuels Success*. HarperOne.
- Kuzma, I. (2019). *Praxeological tales*. Vector, Ternopil.
- MacBeath, J. (2012). *Future of Teaching Profession*. Leadership for Learning, the Cambridge Network. <https://download.ei-ie.org/Docs/WebDepot/EI>
- Maksymova, O. O. (2013). *Formuvannia uspishnoi osobystosti shestyrichnoho pershoklasnyka (Formation of a successful personality of the six-year pupil of the first form)*. Zhytomyr State University, Zhytomyr.
- MON (2017). Derzhavnyi standart pochatkovoї zahalnoi osvity (The State Standard of Primary Education). [https://www.mon.gov.ua/images/standart/derjstandart\\_pochatk\\_new.doc](https://www.mon.gov.ua/images/standart/derjstandart_pochatk_new.doc).
- MON (2019). A typical educational program developed under the guidance of Savchenko O. Ya., The 1–2 grade. <https://mon.gov.ua/storage/app/media/zagalna%20serednya/programy-1-4-klas/2019/11/1-2-dodatki.pdf>.
- ms.detector.media (2016). Kontseptsiiia vprovadzhennia mediaosvity v Ukraini (nova redaktsiia). <https://tinyurl.com/y8y89djk>.
- Łopatkowa, M. (1992). *Pedagogy of heart*. School and Pedagogical Publ. House, Warsaw.
- Semeniako, Y. (2016). Sotsialno-pedahohichni problemy suchasnosti: Mediabezpeka ditei doshkilnoho viku (Socio-pedagogical problems of the modernity: media security of preschool children). *Osvitnii prostir Ukrainy*, (8):137–142.
- Sukhomlinskii, V. (1962). Urgent problems of the theory and practice of education. *Soviet Education*, 4(7):3–12.
- Tereshchuk, H. V., Kuzma, I. I., Yankovych, O. I., and Falushynska, H. I. (2019). The formation of a successful personality of a pupil in ukrainian primary school during media education implementation. *CEUR Workshop Proceedings*, 2433:145–158.
- Vujcic, N. (2012). *Life Without Limits: Inspiration for a Ridiculously Good Life*. WaterBrook.
- Wagner, L. and Ruch, W. (2015). Good character at school: positive classroom behavior mediates the link between character strengths and school achievement. *Frontiers in Psychology*, 6:610. <https://www.frontiersin.org/article/10.3389/fpsyg.2015.00610>.
- Yankovych, O., Shorobura, I., Binytska, O., Binytska, K., Czepil, M., Karpenko, O., Zharkova, I., Hladiuk, T., and Matiash, V. (2020). Primary school pupils' problem-solving skills formation. *Revista Romaneasca pentru Educatie Multidimensionala*, 12(2):148–168. <https://lumenpublishing.com/journals/index.php/rrem/article/view/2668>.