

# Traditions and Innovations in Pre-school and Primary School Education (UL FEPA)

Friday, February 4, 2022 - Friday, February 4, 2022



**80<sup>th</sup> International Scientific  
Conference of the  
University of Latvia 2022**



## Book of Abstracts



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**Traditions and innovations in pre-school and primary school education / 1**

## **FEARS OF PRE - SCHOOL CHILDREN AND POSSIBILITIES FOR REDUCING THEM**

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Justification of the problem. Preschoolers facing a new environment, separating themselves from their parents can experience anxiety which is normal for young children when they are left by their parents in kindergarten. Failure to address the child's fears in the future can lead to anxiety disorders, inability to control oneself, to relax, the child will not be able to see positive things in the future.

Problem question: what are the fears that preschool children experience and what are the possibilities for reducing these fears?

Object: fears experienced by preschool children.

Aim: to reveal the fears experienced by preschool children and the possibilities to reduce them.

Objectives:

1. To substantiate the phenomenon of fear in preschool age.
2. To determine the opinion of parents raising preschool children and their children's opinion about the fears they experience.
3. To reveal the possibilities that reduce the fears of preschool children.

Methods: analysis of scientific literature, written survey, oral survey, qualitative and quantitative analysis of the obtained data.

Research results. 1. Fears for preschool children are specific, related to the child's age, and over time, many fears go away on their own. Due to family misunderstanding (parental indifference, special stressful situations), the child's fears can turn into phobias. Children who experience fears become anxious, angry, and it is harder for them to concentrate on things.

2. Parents acknowledge that their children face a variety of fears, and they try to help their children overcome those fears. Interviews with children revealed that children are most often confronted with fears of other children, animals, imaginary creatures, unknown situations, and individuals.

3. Overcoming fears is promoted by close family relationships, the opportunity to talk, joint activities with other children, pedagogical assistance and keeping to the rhythm of the day.

**Keywords:**

children's anxiety, overcoming fears, cooperation, educational factors, pedagogical assistance.

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## **Teacher's networking means of internal communication with the child's family**

**Author:** Jana Buboviča<sup>1</sup>

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Successful communication supports and promotes the involvement of families in children's development and knowledge acquisition processes, encourages them to actively participate in pre-school life, but the circumstances caused by the Covid-19 crisis led preschool leaders to look for solutions and change their communication habits.

Internal communication is an important part of everyday life to provide parents with an understanding of current activities, assessment, methods, and techniques for achieving goals and other relevant topics. Thus, to ensure effective internal communication, it is important to choose the right channels and convey clear messages.

Networking is the creation of a network of contacts and useful contacts that helps to solve various issues quickly and efficiently. Networking is based on building long-term relationships between people based on trust and mutual help.

The topicality of the research is determined by the fact that due to the circumstances of the crisis, previously successful communication models no longer provide effective communication with the children's parents, therefore there is an objective need to change the communication principles of the pre-school educational institution.

Keywords: communication, networking, cooperation, teacher, the child's parents.

**Keywords:**

Keywords: communication, networking, cooperation, teacher, the child's parents.

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## **The Impact of Covid-19 Pandemic on Music Education: A Review of the Literature**

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The topicality of the study was determined by the impact of the Covid-19 pandemic on music education in various educational institutions around the world. The purpose of this literature review was to summarize and identify current issues related to music education during the Covid-19 pandemic. The study used publications available in the Sage Journal database and published in the last two years (2020-2021). The study raised two research questions. RQ1: What challenges in teaching and learning music for both teachers and students are during the Covid-19 pandemic? RQ2: What organizational forms of learning do music teachers use to mitigate the effects of the Covid-19 pandemic on the learning process? The literature review identified four thematic groups that affected music education during the Covid-19 pandemic: (1) The appropriate learning tools or platforms, (2) The teaching and learning methods and techniques, (3) The stress and well-being of music teachers and students, (4) The professional development of music teachers. The study found that music teachers mostly use organizational forms of learning such as remote learning and online learning to reduce the effects of the Covid-19 pandemic on the learning process. Music teachers seek and create several solutions to improve the overall effectiveness of music education in the changing epidemiological environment.

**Keywords:**

Music education, organizational forms of learning, music teachers, music learning, music teaching, learning process.

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## **Personalized Content in the Intervention Process – A Key to the Success in Speech Therapy for Pre-school Children**

**Author:** Sarmite Tubele<sup>1</sup>

<sup>1</sup> *University of Latvia*

The paper is devoted to reveal the importance and necessity of the personalized content for a child in the intervention process in speech therapy. Every child is special and unique; his interests and desires are important for speech therapist. Child has to be an active participant in speech therapy

sessions. His strengths are the basement for the development. New knowledge for pre-schoolers is formed on the basis of the existing knowledge; it needs to be purposefully developed by teachers and this can be done if a child is engaging in the learning process. The active participation of a child in speech therapy sessions increases the child's motivation and attachment to the task to be performed, thus contributing to a faster and more effective result.

Methods used are: literature review and observation of children in speech therapy sessions. Theoretical background is not only the personalized content; it is linked also with speech therapy, intervention process and children participating in speech therapy sessions.

Main findings reveal the improvement of the pronunciation of preschool children and besides the satisfaction and good mood during all observed speech therapy sessions.

**Keywords:**

Key words: personalized content, intervention process, speech therapy, speech therapy sessions, pre-schoolers.

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## **Subjective perception of literary work to promote text comprehension in the 5th grade**

**Authors:** Ilze Sumane<sup>None</sup>; Liga Aboltina<sup>None</sup>

Reading proficiency has become a priority research focus in pedagogy in recent decades, as the ability to read and interpret a text is one of the foundations necessary for a person to be able to work with diverse texts in different life situations. Observations show that at the end of the first stage of primary education (at the end of the third grade) students demonstrate technically good reading skills, that is, they are able to read clearly what is written, follow the boundaries of sentences and read using appropriate intonation. In order to promote reading competence in succession in the second stage of primary education, it is necessary to continue the improvement of reading skills by using various texts, in addition to fiction. From Form 4, literature is included in the curriculum as a separate subject, with the aim of promoting the skills and interest of pupils in the perception and evaluation of a literary work, and creative self-expression. The subjective perception of a literary work is related to the awareness of the reader's experience, the synthesis of images, the visualization, the awareness of fiction and reality, which is a prerequisite for understanding the text.

The aim of this research is to study the methodology used in the acquisition of literature to promote the comprehension of the text by fifth grade students by activating the subjective perception of literary work.

Enabling objectives: 1) to analyze research on the promotion of text comprehension and the subjective perception of literary work; 2) to analyze the literature acquisition methodology in lessons and students' works.

A qualitative study was conducted, in which a content analysis of the work of fifth grade students was used as a research strategy. The research provides an insight into the methodology of 5th grade literature acquisition.

**Keywords:**

literary didactics, literary work, reading skills, text comprehension, subjective perception, fifth grade

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## **Promotion of listening skills in preschool children with phonological insufficiency**

**Authors:** Ilze Vilka<sup>None</sup>; Ilze Vilka<sup>None</sup>

Human is social being who has a desire to communicate. Communicative interaction with other members of society is an important aspect of a child's development. Communication is based on specific knowledge and skills which are based on to the generally accepted rules of language. Fully developed speech and successfully acquired language is the "key" in the future of human life. Successful communication requires the ability to use the four types of language activities: listening, speaking, reading and writing. In this study will focus on the promotion of listening skills in preschool children with phonological insufficiency.

In Latvia, the acquisition of study content at all stages of education is based on the competence approach, namely, in-depth learning, understanding of regularity and the ability to transfer the acquired knowledge to new, unknown situations.

The pre-primary curriculum has clearly defined language outcomes for three content units: communication in context, text and text environment and language structure. Each of these content units in the language domain requires the full development of listening skills. Listening means receiving, processing and interpreting information. Listening is the active perception of information by hearing and being prepared to respond to it with understanding.

Children with phonological handicaps have sound pronunciation disorders, sound omission, confusion and substitution in both spoken and written speech and/or reading, and not often underdeveloped listening skills. Children have underdeveloped phonemic processes, namely, it is difficult for them to perform activities such as distinguishing between similar sounding sounds, recognising and identifying correctly and incorrectly pronounced words in a word sequence, reversing the rhythm of non-speech and/or speech sounds they hear, etc.

The aim of the study is to study, in theoretical terms, and to assess, in practical practice, the possibilities for promoting the skills of listening to children with a phonological insufficiency.

**Keywords:**

listening skills, phonological disorders, speech therapy intervention, preschool age children

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## **The Impact on the Mathematics Curriculum for Grades 7-9 in the Competency Based Approach in the Learning Process**

**Authors:** Maruta Avotiņa<sup>None</sup>; Elina Bulina<sup>None</sup>; Guna Brenda Pogule<sup>None</sup>; Agnese Zilite<sup>None</sup>

From the school year 2020/2021, competency-based learning is gradually being introduced in Latvia. The aim of the project "Competency Based Approach in School Curriculum" (Skola2030) is to develop and appraise a general education curriculum and teaching approach in schools in Latvia that will provide pupils with the knowledge, skills and attitudes needed for modern life.

The changes not only focus on different teaching methods, but also make some significant changes to the mathematics subject curriculum. The content of mathematics is now structured around six big topics: the language of mathematics; strategies and reasoning inherent to mathematics; numbers, operations on numbers; elements of algebra and relationships; shapes; data and elements of statistics. The presentation will focus on the main changes in the mathematics curriculum for grades 7-9. Compared to the previous mathematics standard, some topics have been reordered and some topics have been moved to the secondary school grades. The correct use of mathematical language and the use of different problem-solving strategies play an important role in the current teaching process. Problem solving strategies that have been used for years in mathematical Olympiads will now also be taught in school, which could help to identify talented students and challenge students to solve non-standard problems during lessons. Understanding a mathematical concept or quantity is primary to practicing calculating the numerical value of that quantity, which is necessary but secondary. In the past, more emphasis was placed on exercises and solving tasks according to a given algorithm.

**Keywords:**

Mathematics, curriculum, competency-based learning, Skola2030, problem-solving strategies, primary school



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## Transitioning to Heterogeneous Preschool Language Environment

**Authors:** Aija Nilendere<sup>None</sup>; Inese Eglite<sup>None</sup>

### Transitioning to Heterogeneous Preschool Language Environment

**Mg. Paed. Inese Eglite**

**Aija Nilendere**

#### Summary

For Europeans, the life in the 20th century has welcomed enormous changes – open borders, and increased mobility, to name a few. Currently the European Union has 505 million inhabitants, three alphabets and 24 official languages. Thus, linguistic background of our modern life is one based upon multilingual and multicultural societies.

Accordingly, diverse and previously unknown problem situations in pedagogical process emerge, emphasizing the relevance of the paper “Transition to Heterogeneous Preschool Language Environment”.

This subject was a current matter also to the author when moving to Brussels and when the author’s child transitioned to a heterogenous preschool language environment. As a parent and prospective teacher at that time, the author was looking for information on ways how to help the child and thus professional interest aroused – how should a teacher act in this situation?

Multilingualism in preschools has not been widely examined neither in Belgium, nor in Latvia, yet multilingual classroom requires an interdisciplinary teaching.

The aim: to study in theory and practice the ways of overcoming transitioning difficulties for two- and three-year-olds in a linguistically heterogenous preschool environment.

The study method: observation, questionnaires and comparison.

The study data in observation were collected from a study base in a multinational preschool in Brussels participating 15 pre-schoolers aged 2-3 years, and a multinational preschool in Riga involving 13 children aged 2-3 years. Data from parents were collected via questionnaires providing a valuable insight into toddler’s everyday life habits and their effect on transitioning to heterogenous preschool setting.

#### Keywords:

transition, preschool, linguistic diversity, cultural diversity, linguistically heterogeneous environment, communication, teacher competence

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## The Effect of Using Cartoons on Primary School Students’ Academic Achievement in Social Studies Courses in Turkey: A Meta Analysis Study

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The main purpose of this ongoing study is to investigate the effect of using cartoons on primary school students’ academic achievement in social studies courses in Turkey. We preferred to conduct meta-analysis instead of traditional literature review. In accordance with the purpose of the study, we analyzed experimental research such as articles, dissertations, and papers which were obtained from Web of Knowledge, ERIC, Scopus, Proquest, Ebscohost, Google Scholar, The Turkish Council of Higher Education Thesis Center, and Dergipark databases. We used [”cartoon” OR “comic” AND “social studies”] search code in order to reach convenient publications. As a result of literature review by using search code, 25 publications that were conducted as experimental studies between 2009 and 2021 were listed. 10 publications were eliminated since they had non-parametric values in normality tests and have no standart deviation values of control and experimental group posttests. Moreover, publications that have no achievement test were eliminated as well. Finally,

15 studies were included. In this ongoing study, we will use CMA software in order to analyze data. First, Hedges'  $g$  values of experimental studies will be calculated and homogeneity of studies will be checked to choose appropriate model. Lastly, the common effect size will be calculated to evaluate the effect of using cartoons on primary school student' academic achievement in social studies courses in Turkey.

**Keywords:**

social studies, cartoon, comic, meta-analysis, academic achievement

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**EXPRESSING THE CULTURE OF EDUCATIONAL INNOVATIONS  
IN EARLY CHILDHOOD EDUCATION IN LITHUANIA**

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Advanced innovative pedagogical practices, innovative educational methods and innovative educational aids have been introduced in early childhood and pre-primary education in Lithuania. Establishment of favourable culture is perceived as one of the most significant factors that contributes to the spread of innovations in an organisation. The goal of research is to disclose the expression of innovation culture in institutions of early childhood education. The research focuses on identifying what most important features of educational innovations (STEAM, non-traditional outdoor spaces, the Learning School, technological exploration tools, engagement in international community networks) are highlighted and how the culture of educational innovations is implemented in institutions of early childhood education. By applying the factor analysis, attempts were made to identify the factors that have influence on or impede the formation of innovation culture in an early childhood education institution. The results of the quantitative research show that the culture of new knowledge registering, constant reflection, collaboration, creativity, tolerance towards new perspectives, shared leadership, ability to apply success and constant improvement has been created in an institution of early childhood education. The research allowed identifying two groups that include 3 factors of expressing educational innovation culture each. The first group embraces a constant pursuit of improvement, shared leadership and creation of an institutional environment as factors that promote the creation of the culture of educational innovations. The second group includes the structure of an institution, professional development of staff and teacher motivation seen as factors that impede formation of the culture of educational innovations in an institution of early childhood education.

**Keywords:**

Early childhood education, expressing the culture, educational innovations

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**DIGITAL BRACELETS AS ONE OF THE POSITIVE BEHAVIORAL  
INSTRUMENTS FOR STUDENTS WITH DISORDERS OF  
FUNCTIONAL DEVELOPMENT**

**Authors:** Ilze Liepa<sup>1</sup>; Sarmite Tubele<sup>2</sup>

<sup>1</sup> *Latvijas Universitāte*

<sup>2</sup> University of Latvia

*Paper Digital Bracelets as One of the Positive Behavioral Instruments for Students with Disorders of Functional Development* is devoted to reveal the possibilities for better communication and positive behavior of students with severe intellectual disability or multiple disabilities. The research is dedicated to students, their parents, teachers who face the barriers in daily communication due to the inability to understand the child's wishes and needs, and failing to convey information in a way understandable for the child.

During the research, the issue of the necessity and application of joint acquisition of alternative and augmentative communication in the teaching process for students with intellectual disabilities was raised.

The topicality of the work is determined by the difficulties, that occur in acquiring communication in educational institution, as well changing communication partners and environment during the course of life also communication difficulties and behavioral problems arise. Based on the researches of the scientific literature that unified alternative and augmentative communication promotes students' ability to understand what others are saying, express their desires and needs (communicate), help them learn content, develop self-control, develop socially acceptable behavior.

Methods used are literature review, pedagogical observation, survey.

The main findings say, that it is necessary to use unified means of alternative and augmentative communication – the Wigit symbol language. The results confirm that augmentative communication bracelets help students with intellectual disabilities to promote positive behavior and improve the communication.

Key words: Alternative and Augmentative Communication, students with intellectual disabilities, augmentative communication bracelets, special needs education, multiple developmental disorders, positive behavior.

**Keywords:**

Alternative and Augmentative Communication, students with intellectual disabilities, augmentative communication bracelets, special needs education, multiple developmental disorders, positive behavior.

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## **Development of emotion regulation skills by integrating mindfulness practice in early childhood education**

**Authors:** Elina Vitola<sup>None</sup>; Lana Frančeska Dreimane<sup>1</sup>

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Rapid technological development and information overload has shaped the identity of the 21st century and has had an immense impact on the social aspects of human life including education systems and children across the world. In early years, children experience rapid flows of information and vast variety of emotional stimuli every day, which without the ability to effectively self-regulate emotional response to these stimuli, can be cause for anxiety, cognitive overload, socialisation problems and uncontrollable emotional release, resulting in psychological distress for everyone involved – children, parents and educators. Furthermore, in early childhood education one must always consider long-term implications, as during such overwhelming moments, child is not capable to effectively engage in socialisation or learning processes and subsequently, it can have a negative effect on overall long-term development and life of a child.

As current research confirms, in the past decade social emotional learning for many education institutions and systems worldwide has become an integral part of learning. However, in early childhood education research, there remains a notable knowledge gap concerning the lack of systematized knowledge and practical tools to support the development of emotion regulation skills in early childhood education. This research presents a theoretical and qualitative multi-method study, including a pedagogic intervention, thus providing scientifically grounded answers and practical advice for educators and early childhood education institutions on how to integrate mindfulness practice to promote emotion regulation skills of children aged 5 to 6 years old.

**Keywords:**

emotion regulation, mindfulness, early childhood education, social emotional learning, education

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## **Future pre-school teachers' standpoint on benefits and strains of remote studies during Covid-19 emergency**

**Authors:** Anna Liduma<sup>1</sup>; Inese Jurgena<sup>1</sup>

<sup>1</sup> *Professor*

**Abstract**

Covid-19 has reached the scale of a pandemic, declaring a state of emergency not only in Latvia and Europe, but in the world in general. This places new demands on the transformation of education and the readiness of teachers to work in a pandemic.

The training of future pre-school teachers in higher education institutions is related to the need to develop a variety of competencies for the teacher to be able to carry out the tasks assigned to her/him.

In this regard, our study updates the standpoints of future pre-school teachers on the benefits and strains in remote learning.

The aim of the article is to analyze the standpoints of 1st year students, future pre-school teachers about the student experience: benefits and difficulties of remote learning in the emergency situation of Covid-19.

**Materials and methods.** Theoretical method - analysis of scientific literature, empirical method - a survey of 170 pre-school full-time and part-time students was conducted, in the period from October to December 2021. The survey was conducted via questionnaires. 170 1st year pre-school students participated in the study.

The results of the empirical study show that, in general, the emergency situation at Covid 19 has specified the benefits and difficulties of remote learning, increasing the willingness of prospective teachers to take responsibility for the self-directed learning process. There is a tendency for students to become more pragmatic and purposeful, and their understanding of the importance of remote learning is largely positive. Students learn new skills and find operative solutions in various unusual situations. At the same time, there are also difficulties for students in communicating with other students and the lecturer. No significant differences were found between the views of different groups of students.

**Keywords:** pre-school teachers, remote learning, Covid-19 emergency.

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**Keywords:** pre-school teachers, remote learning, Covid-19 emergency.

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## **STUDENTS' ENGAGEMENT IN LEARNING THROUGH USE OF DIGITAL LEARNING PLATFORMS**

**Author:** Rūta Girdzijauskienė<sup>1</sup>

**Co-authors:** Liudmila Rupšienė<sup>1</sup>; Eglė Pranckūnienė<sup>1</sup>

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Search for ways to promote students' engagement in learning is one of the most important research focuses in contemporary education. Engagement can be defined as a high level of interest expressed through behavioural, cognitive, and emotional categories (Fredricks et al., 2004; Fredricks, Blumenfeld, & Paris, 2004) or as a set of elements of focus, inner interest, interactivity, motivation, and functionality (O'Brien & Toms, 2008). Students' engagement in learning can be examined by exploring specific contexts and can be measured by different instruments. In the present study, students' engagement is analysed in the context of learning through use of digital learning platforms. This study takes a context-oriented perspective (Sinatra et al., 2015), where researchers are focusing on students' engagement through the use of digital learning platforms in specific educational situations. The data obtained from focus group discussions and creative workshops with 12 primary school teachers are analysed. The results of the research showed that use of digital learning platforms for the learning strengthened students' learning motivation, helped them to gain various experiences, and increased engagement in learning. Student engagement manifested itself in all three categories: behavioural, emotional, and cognitive. Most cases of engagement were observed in pair or group work. The research has shown that technology can enhance student engagement, but it can also be superficial, based on instant interest. To support and strengthen student engagement, teachers need to rethink their habitual educational practices, to anticipate the barriers to engagement caused by digital technologies and the ways of coping with them, to make use of digital tools for personalised and in-depth learning, and to apply effective means to manage classrooms and the interaction between students.

**Keywords:**

engagement in learning, primary school teachers, digital learning platforms

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## **Innovative concepts in educational robotics: Bee-Bot educational robot for preschool-aged children**

**Author:** Egija Laganovska<sup>None</sup>

Over the last few years, increasing attention has been focused on developing children's acquisition of 21st-century skills and digital competencies. The idea behind the concept of educational robotics in kindergarten is to use the robot as a pedagogical tool to familiarize children in pre-school age with science and technology in a playful way. Since there is no existing framework for teaching programming in early childhood the approach proposed below is an innovative, new tool for educators. Using robotics platforms for kindergarten children to interest them in computer science is a rather new idea in educational robotics. Bee-Bot educational robot is a colorful, simple-to-use programmable robot designed and intended to be used in preschools. It is a Bee-shaped robot, yellow with controls to move forward/backward and turn left-right. Bee-Bot has a simple and child-friendly layout that is perfect for teaching coding, extending imagination and creativity while learning to communicate appropriately in a social setting.

More and more primary education institutions in Latvia are introducing robotics.

The aim of the research is to find out how much robotics is used in learning activities in preschools and what are the examples of good practice.

**Keywords:**

Bee-Bot educational robot, preschool-aged children, educational robotics, ICT

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## **The Future Pre-School and Primary School Teacher Studies Based on Awareness of Professional Competences.**

**Author:** Ingūna Lāce<sup>1</sup>

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Future teachers upon starting their studies associate their choice with the experience they have got during their own educational process. A part of students gain their experience also from their parents-teachers' stories. However, at the beginning of studies future teachers have only a vague idea about competences needed for a Pre-school or Primary school teacher. This idea, understanding and suitable competences are only formed during studies. In Latvia as a result of a project carried out by National Center of Education Republic of Latvia "Competencies Based Approach to Curriculum" (School 2030) there are a lot of publications, seminars, materials which have created the idea about the necessity to change the pedagogical work also for future teachers. Although at the beginning a future teacher does not have any understanding about his/her personal competences that are associated with pedagogical process and which professional knowledge, skills and attitudes have been developed during the studies of an exact subject, practical tasks or apprenticeship period.

Aim of the article is to inform about the research results which verify the assumption that already at the beginning of studies getting acquainted with the profession standard and periodically carrying out analytical work requiring to define the knowledge, skills and attitudes needed to organize the pedagogical process, their connection with the profession standard, studies get more meaningful. As a result a student carries out his/her self-assessment of personal development, associates the knowledge gained with professional development, is motivated to apply his/her knowledge in practise and use for the development of personal skills.

**Key words:** teacher's professional competence, professional knowledge of a Primary School teacher, skills and attitudes, meaningful studies, self-assessment.

**Keywords:**

teacher's professional competence, professional knowledge of a Primary School teacher, skills and attitudes, meaningful studies, self-assessment.

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## **Some Aspects of Education of Diaspora Pupils: the Experience of Classflow Platform Usage in Latvia**

**Authors:** Inese Eglite<sup>None</sup>, Zenta Anspoka<sup>None</sup>

The relevance of the research follows the target included within the documents of Latvian education policy (the Law of Diaspora, the Guideline of the Diaspora Education) to promote Latvian identity, to preserve the Latvian language and to provide and develop education of the concept of Latvia.

The aim of the research is to identify the factors that affect the educational quality of school children in the Latvian diasporas the Classflow educational platform provided by the Latvian language Agency and to identify the possible pedagogical solutions of elaborating the content and language integration process.

The methodology of the research is based on the theories of culturology, smart pedagogy, psychology and lingvodidactics. The empirical data are collected observing pedagogical process (200 respondents in 36 countries) and organizing surveys of the teachers and pupils' parents.

The data of the research allows to make the following conclusion - Classflow as digital educational platform permits the teachers to integrate different educational resources in interactive process, permits to work individually and also differentiate the performance of teaching in socially and linguistically heterogeneous environment. At the same time, it is challenging for both pupils and teachers as high level of digital skills is very significant and necessary as well as knowledge about school children's metacognitive process parallelly learning about the culture, traditions, history and current social situation of Latvia. Teachers also are of great need of information about the basic principles of performing the digital teaching, evaluation system and other kind of materials.

**Keywords:**

content and language integrated learning, digital competence, smart pedagogy

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## **Transformation of Mathematics Education Curriculum in Pre-school in Latvia**

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The acquisition of mathematics begins with the birth of a child within the cultural environment or socio-economic environment of the child. The child learns the mathematics by investigating and exploring the environment in which they are located. The article describes and analyses theoretical materials, documents about applying new education curriculum for the acquisition of mathematics within the approach in competence-based approach in the pre-school in Latvia. From the school year 2017/2018, competency-based learning is gradually being introduced in Latvia. The research focus on the analysis of pre-school education guidelines (2018) developed by the National Centre for Education within the framework of the project “Competence-Based Approach to Curriculum,” pre-school curriculum (2019) and document Education for modern literacy: description of the teaching/learning content and approach (Skola 2030) giving particular attention to mathematics to be acquired at pre-school. Such criteria as aim, content, teaching strategies and assessment were chosen in the research aspect of applying new education curriculum for the acquisition of mathematics in pre-school. Main findings reveal the improvement of the mathematics education aim, teaching learning as well as teaching strategies in the acquisition of mathematics in pre-school.

**Keywords:**

mathematics, education, pre-school, curriculum.

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## **Planning of Senseful Learning in Primary Education**

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A person's understanding is formed, and a person changes due to the experience of meaning. In primary school, this is ensured through deep and meaningful learning. The problem for the teacher is that sense is felt subjectively, in relation to the experience of values (rather than meeting one's needs), and classically there are no tools in pedagogy to measure / determine it objectively, there are no words to describe it. Pedagogical experience in teacher education programs and in-service training reveals that when planning a learning process, a teacher successfully considers many components - learning content, methods, expected outcomes, environment, relationships, materials, standard requirements, students' background etc. But the challenge is to understand how to bring them together so that the student's learning is deep, organic, and senseful.

The article analyzes the concept sense, concluding that it is the opposite of positive or negative situational emotions; the illumination and understanding of the sense is not only a complex of emotions, knowledge, skills, attitudes, competences, but a constant part of human existence (Heidegger), which refers to the human personality as a whole.

The relationship between cultural values and the content of education is similarly examined, from that follows conclusions how culture gives meaning to each activity and does not contradict the development and needs of the student's personality.

Based on pedagogical principles or planning senseful learning derived from theoretical analysis, a pedagogical model has been developed in which the manifestations of personally meaningful experience are related to different components of the learning process, as well as examples of implementation of the model in different learning areas and their integration.

**Keywords:**

Keywords: sense, meaning, senseful learning, learning process planning, primary education, cultural context, values.

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## **Social skills in the preschool self-directed learning process**

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The success of the process of developing social skills in pre-school depends on the coordinated actions of all adults involved in the process of raising a child. Social skills are necessary for a child's social interaction - they are acquired during the child's relationship with other people and the environment in which the child lives.

One of the essential activities in the development of pre-school social skills is play, which successfully integrates into the self-directed learning process, provided that the adult has created an appropriate environment. The organization of the play environment is essential for the improvement of the self-directed learning process, because play is the main activity in which children actively get to know themselves, others, learn about the world around them, learning social skills.

Self-directed learning is an individual's readiness to adapt and use their skills, knowledge and attitudes in dealing with a variety of pre-school situations.

Social skills do not exist in isolation from each other; they can be seen in the system. The development of social skills is closely linked to the regularities of age development and is developed gradually for children by observing other children and engaging in joint play. Social skills give the opportunity to develop and use their abilities, learn from each other, as well as help each child to promote self-development.

The self-directed learning process in the acquisition of social skills is relevant today not only because it is one of the essential competencies of today, which must be paid attention to, but also in connection with the modern situation, when the distance learning process also affects pre-school, therefore, it is necessary to develop a model for teachers to acquire social skills in pre-school.

**Keywords:**

social skills, preschool, play, self-directed learning process.

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## **Analysis of pre-school children's play**

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In pre-school age, playing is considered as the child's main activity which enables its development and learning. While playing, child experiences positive emotions (especially joy), learns different roles (mother, doctor, driver, salesman), also it encourages the formation of his imagination and self-regulation. Playing expands a child's ability to search for facts, scientific knowledge (Finnish National Agency for Education, 2020) and creates a narrative. In pre-school age, the language of many children is not yet developed, their narratives are often non-verbal, but expressed through play, body movements, drawing, and so on. I.e. that the child's play, drawing, different representative body expressions are the child's narrative, that is to say, his story of his experiences. Eventually, such nonverbal children's narratives develop into a verbal narrative. The most important thing is that it is an expression of the child's personal approach to events, of his own understanding, of a topic that is important to him, that it be his authentic narrative voice as an expression of his thinking (Hakkarainen and other, 2015).



This report focuses on play as a child's narrative, deepening what the child is telling about their world, this is how he interprets, recreates and recounts events. In our evaluation, child's play reveals his experience and personal view and understanding this, is important for the teacher. The report will analyze the narrative created by the preschool child, focusing both on the child's narrative line, both into game development, E.g the ability to start and continue the game, the initiative of the children to communicate and the ability to keep in touch with a friend during the game

**Keywords:**

pre-school; play, narative

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## **Integration of Historical Content in Social and Civic Sphere Subjects in Primary School.**

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In reforms of "School 2030" an important role is allocated to students' social and civic skills including a developed national, civic and historical consciousness. This approach has become the basic necessity to integrate a comparatively big volume of historical problems in teaching social sciences which requires a teacher not only have in-depth knowledge of history but also suitable teaching methods. In order to provide a successful solution of the problem appropriate study course has been incorporated in the new teacher training programmes for the future teachers in which the historical content and its teaching methods are merged with social and civic sphere. Taking into consideration that the transition to the new programmes is already in process, a relevant issue is professional competences of the working teachers who teach social sciences and need to integrate teaching of history within social sciences. Observations provide evidence that teachers of social sciences comparatively superficially use historical content and specific methods to develop students' social and civic skills. The aim of the article is to identify the main problems (as to content and methods) which teachers of social sciences encounter teaching the subject "social sciences + history" having assessed the possible solutions of the problems. In order to get many-sided analyses of the problem, the views of pedagogical programme students and social science teachers participating in pedagogical development courses will be collected.

**Keywords:**

social and civic studies, social and civic skills, integration of historical content

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## **Opportunities of using digital technologies in the field of health and physical activities in preschool**

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New technologies bring fundamental changes to the lives of 21st-century children. Children are growing up with digital platforms such as Instagram and YouTube, and know how to use a tablet before they are able to talk. Words like "binge-watch", "livetweet", and "hyper-connected" reflect our increasingly virtual world, affecting the way children grow, learn, play, and interact (OECD, 2018).

Digital technologies are increasingly used in preschool education, but in the field of preschool health and physical activity, they are practically not used, as sport and health are not traditionally associated with technology.

The aim of the research is to explore the possibilities of using digital technologies in the field of

health and physical activities in preschool. Research question: What digital technologies can be used effectively in pre-school in the field of health and physical activity? The following research methods were used in the research: theoretical literature analysis; expert interview (N=2); survey of preschool teachers (N=140); pedagogical observation.

The research deals with digital technology awareness, the use of digital technologies in the pedagogical process of health and physical activity teaching, the required digital expertise of pre-school teachers, the content of health and physical activity teaching in the child-centred teaching process in preschool, and the characteristics of pre-primary childhood. In the research in collaboration with parents, sports and group teachers in preschool are 10 practical activities using more than 13 digital technologies observed and analyzed.

The study concludes that digital technologies can be used in the field of health and physical activity in preschool education. The study also offers recommendations for preschool teachers to use digital technologies in the field of health and physical activities in preschool.

**Keywords:**

digital technologies, technologies, health and physical activities, preschool.