SELF –MOTIVATION, TEACHER EFFECTIVENESS AND ACADEMIC PERFORMANCE OF HIGH ACHIEVING STUDENTS IN INCLUSIVE SCHOOLS IN IBADAN, NIGERIA

Dr. Gboyega Adelowo ADELODUN

The study investigated the relationship between self-motivation, teachers' effectiveness and academic performance of high achieving students in inclusive schools in Ibadan, Nigeria. The main purpose of the study was to examine if there is a correlation between the motivation that comes from within the students, the effectiveness of the teachers teaching them and academic performance of high achieving students that are in inclusive schools in Ibadan. The study also examined the meaning and concept of Inclusive Education as well as High Achieving Secondary School Students. The study adopted the descriptive survey research design of correlational type. Simple random sampling technique was used to select four schools from Ibadan North Local Government Area, and in each of the four schools, the Slosson Intelligence Test was used to identify the intelligent ones among the Senior Secondary School II students. The school continuous assessment records were carefully looked into in order to randomly select fifty (50) high achieving students in each of the four schools. The participants were two hundred (200) in total. The three main instruments used were the Self-Motivation Assessment Scale, Teacher Effectiveness Assessment Scale and Slosson Intelligence Test. Three hypotheses were tested at 0.05 level of significance. The data were analysed using the Pearson Product Moment Correlation (PPMC). The result revealed that there was a positive relationship between teacher effectiveness and academic performance of high achieving students (r=0.355); there was positive relationship between self-motivation and academic performance of high achieving students (r=0.415); self-motivation and teacher effectiveness had joint significant relationship with academic performance of high achieving secondary school students (r=.214). Based on the above findings it was recommended that professional guidance counselors counsel students on the act of self-motivation since it has been discovered that the higher the self-motivation of students, the higher their academic performance. It was also recommended that teachers handling high achieving students should be exposed to capacity building programmes to improve their effectiveness.

Keywords: *self-motivation, teacher effectiveness, academic performance, high achieving students.*

FINE MOTOR SKILLS DEVELOPMENT IN PRESCHOOL-AGE CHILDREN WITH SPEECH AND LANGUAGE DISORDERS

Lūcija Anoško

Children with speech and language disorders are characterized not only by the unique development of the speech but also by specific characteristics of cognitive and sensory motor skills. The research was based on the theoretical recognition of the specific characteristics of child development in case of speech ontogenesis and dysontogenesis. In order to specify the development level of fine motor skills of children, the same diagnostic activities were used that usually are used by speech therapists in order to check the speech and language development of children as well as their cognitive and motor abilities. In addition, the speech and language development of children was checked. The goal of the research is to analyze the mutual relations between speech and language disorders and the development of fine motor skills.

Participants of the research were pre-school age children with different speech and language disorders, aged 3 to 6, 27 respondents in total; they go to a pre-school education institution for children with speech and language disorders. The children were divided into 2 groups: in the first group there were non-verbal children (5 children) and in the second group there were verbal children with different speech and language disorders (22 children). During the research, there were conducted the observation of the children and corrective developmental intervention. The results of the research show that there is a correlation between speech development and development of fine motor skills (fine muscles). The reduction of speech and language disorders is tightly connected with the improvement of fine motor skills.

The methods of the research: analysis of the scientific literature, investigation of the children in the context of speech therapy, observation and corrective developmental intervention, summary and analysis of the acquired data.

Keywords: fine motor skills, speech and language disorders, preschool-age children.

UNIVERSITY STUDENTS' TIME MANAGEMENT AND PERFORMANCE:

OPPORTUNITIES AND CHALLENGES OF ONLINE COURSES

Anita Auziņa

An online course can offer limitless opportunities to expand one's knowledge, develop skills and competences and, meanwhile, combine one's virtual learning journey with real world activities, and also studies in the case of university students. To manage all, the use of time for the productivity and achievement is crucial.

The paper discusses the time management and performance of university students taking an online course. A case study was carried out, and teacher education students, who participated in an online course on Learning Technologies and Content and Language Integrated Learning (CLIL), were questioned to explore their time management strategies and performance during their five-months online study period. Besides, two moderators of the online course were interviewed to find out their opinion on students' time management habits and performance quality, and the differences between their expectations and reality were examined.

The findings suggest that students' time management was considerably challenged, and the set amount of time, i.e. one week to accomplish one unit and its related assignments, required advanced planning and change of study habits to achieve the aims and objectives of their virtual learning process.

PORTFOLIO OF CULTURAL COMPETENCE AS A LONG-TERM INNOVATION FOR ALL LEVELS OF EDUCATION

Avotina Austra

The paper describes the portfolio of cultural competence, which is an innovative approach towards the organisation and evaluation of the study process. This includes an active involvement of all parties in the study process: creative work, expression of original ideas, recording of the research process and prevalent self-evaluation. The relevance of the subject of this paper is defined by the upcoming education reform in Latvia, which is built around a purposeful, systematic competence development in eight of the basic components for lifelong learning (*European Parliament recommendations of Key competences for lifelong learning* - 2006/962/EC). One of these components is cultural understanding and expression. The research consists of three parts:

- the portfolio approach in the study process;
- cultural competence as a quality indicator of the education;
- particular options of realisation and evaluation.

According to the definition, a portfolio is a collection of artefacts, materials and works collected over a certain period of time, and it encompasses three equally important components of the competence: knowledge, skill and attitude. The portfolio demonstrates the accomplishments of the study process and serves as a positive self-evaluation in one or several areas. The portfolio approach can be used in different areas, but it has an especially high value in culture and arts studies. Therefore the main topic of the research was particularly the portfolio of cultural competence, which can ensure the compliance with the education levels defined in the European Qualifications framework (EQF).

The portfolio of the cultural competence is a collection of personal documents which can and preferably should be supplemented, re-organised and changed over the long-term period in line with its aims. Such portfolio is a tool to fulfil the aim of the education and to reflect the achievement. Not only it is an important tool in the areas of culture and art – for actors, musicians, architects, and models, but actually for every pupil, student and human who wants to intentionally develop his cultural competence as a lifelong process.

Keywords: *portfolio, cultural understanding and expression, cultural competence, study process evaluation*

BLOCKCHAIN ARCHITECTURE IN SMART PEDAGOGY

Andis Āriņš

Block chain architecture in Smart Pedagogy offers valuable social propositions like trust, identity, transparency, immutability, smart contracts and disintermediation. There exist multiple practices how to record learners' achievements and present learning transcripts where the most common practices are university issued diplomas and vendor issued certificates. There are social networks which allow users to publish their learning achievements for possible stakeholders, but a common problem is to verify if published diplomas and certificates are valid.

This study experiments with lifelong learning transcript called knowledge passport in block chain architecture. The proposed scenario allows learners to publish evidence of their learning achievements in desired formats connected with block chain network for instant authenticity verification. The experimental network consists of three nodes where one is located in Latvia, the second one is located in the USA, and the third is located in Asia. Based on proposed implementation such approach much better validates learning evidence, eliminates knowledge passport fraud and reduces organizational workload overhead for stakeholders involved in knowledge evidence document verification.

Keywords: block chain architecture, knowledge passport, Smart pedagogy, published diplomas and certificates, validity.

DEVELOPMENT OF MEDIA COMPETENCE OF PROSPECTIVE PRESCHOOL TEACHERS IN STUDY PROCESS AT UNIVERSITY

Dr.paed. **Sanita Baranova**

This is a proposal for the oral presentation of a paper at the ATEE 2019 conference. The research carried out includes an analysis of theoretical literature and a qualitative and comparative empirical analysis of the teaching experience (Radnor, 2002) gained during the study process of the study course "Media in Pre-School Education".

Media competence is one of the key competencies in modern education systems. The development of prospective teachers' media competence is a challenge for teachers' education too. (Lillvist, Sandberg, Sheridan, Williams, 2014; UNESCO, 2011) Since academic year 2013/2014 at the University of Latvia there have been taught a new study course "Media in Pre-School Education" for the first-year students of the short cycle programme "Preschool Education Teacher". The aim of the course is to promote students' understanding of pedagogical opportunities using media in preschool education, teachers' research activities and professional development of teachers. Within the course students are expected to achieve media competence, as well as to acquire basics of media didactic and media upbringing in preschool education.

The aim of the research is to evaluate the development of media competence of prospective pre-school teachers during the study course acquisition.

The study analyzes the efficiency of the study course used teaching-learning methods to promote students media competence (practical tasks, peer-teaching-learning, portfolio), self-reflections of students and assessment of learning outcomes.

The paper includes recommendations for improving the quality of the study course "Media in Pre-School Education" and prospective preschool teachers' media competence development.

Keywords: *media competence, critical thinking, prospective preschool teacher, teacher education, study process, portfolio*

TEACH-GYM: GROW YOUR METHODOLOGIES

Maria Giulia Ballatore, **Igor Simone Stievano, Anita Tabacco**

This paper reports on a recent on-going initiative put in action within the long-lasting connection between a European University, Politecnico di Torino - PoliTo (Italy), and a Central Asia Institution, Turin Polytechnic University in Tashkent - TTPU (Uzbekistan). The differences and educational needs of the two involved countries stimulated a contest of ideas aimed at supporting the redefinition of teaching methodologies and course contents in bachelor programs.

The directional contribution from Italy to Uzbekistan has favored some critical reflections on the type of internationalization in place and on the teaching methodology in light of the needs of local reality. Those thoughts can be formulated in the following research questions:

- How it is possible to make the connection between the two institutions a "win to win" link and not just a simple monodirectional relation from PoliTo to TTPU?

- In light of the mismatch between higher education expectations and working skills requirements, how can the teaching methodologies and the course contents in bachelor courses be reviewed?

The Uzbek reality can become a "GYM", in the sense that it offers the opportunity to train by experimenting with these new approaches in order to transfer the methodology and the experience acquired within PoliTo Bachelor's programs. Moreover, thanks to the difference in the size of the students' population (some hundreds in TTPU and thousands in PoliTo), on one hand, these new approaches are expected to strengthen the in-depth preparation and job-oriented background, and, on the other hand, they will create a solid and proven tool for the application of a similar teaching framework to a larger group of students. Therefore, to address those research questions, a contest of ideas, the "Grow Your Methodology - GYM calls", has been set with financial support for the implementation of winning projects.

Through the Kolb's cyclical model of learning, consisting of four stages (do, observe, think, and plan), the involved lecturers are stimulated to review their teaching style. A learning-by-doing process is then in place at the teacher level. Conclusions. The connection already in place between a historical European University and a young Asian Institution has now a different perspective: from "give to bring" to "win to win". Italian professors, in fact, can experience a new way of teaching and improve their teaching methodologies, whereas the Uzbekistan ones continue to grow their teaching and research skills.

Keywords: *engineering education, international connections, learning by doing, teaching methodology*

COLLECTIVE MUSIC MAKING – IN THE WHOLE OF A TEENAGE PERSONALITY DEVELOPER

Guntars Bernāts
Irēna Andersone

In a democratic society, an individual is regarded as a unique value who lives, studies and works among others. The modern era of advanced technology places people at the computer, but practical action is what allows young people to learn, express themselves, self-realize, etc. Collaborative skills are one of the most important lifestyle skills for preparing adolescents for life. The main idea of humanistic interaction is to help the adolescent to develop, which is one of the main components of life activity. It is designed to develop initiative, self-control, self-assessment. Successful development of the social skills of pupils takes place in the interaction between pupils and the adults and pupils themselves in the socialisation process: mutual perception, assessment and influence.

Children and teachers may face a number of challenges when they come to school: children have different degrees of readiness for school, lack of readiness for the new psychological role, varying motivation to go to school, different levels of skills and abilities, so it is important to bring these children together more and create more enjoyable time for them at school. One of the forms of learning that unites children definitely is collective music making, because students act as a single team for a single purpose, allowing them to get to know each other better and become more open.

The topicality of this research is indicated by the issue of promotion of self-realization of adolescents and development of creativity, which is actualized in pedagogy, because only such personality in the future would be able to compete successfully on the labor market by generating and offering their ideas.

Methods: As part of the study, the authors conducted a survey of small music collectives, ensemble leaders, which helped to reveal the formation of collective musical experience of the learners in creative activities, developing both socialization and cooperation skills, as well as promoting the possibilities of self-realization of the adolescents.

Keywords: *collective music making, instrument playing, cooperation skills, self - realization*

REREADING FRESHMAN-YEAR BLOGS: THIRD-YEAR PRE-SERVICE STUDENT TEACHERS REVIEW THEIR FIRST-YEAR REFLECTIVE BLOGS

Liat Biberman-Shalev, Ph.D

In recent years, there has been increasing evidence that the use of blogs in diverse academic contexts is becoming more commonplace, particularly in teacher education (Biberman-Shalev, 2018). In this context, the blog is seldom used as a study journal in which pre-service student teachers document relevant information from college courses and practical work at school, publish reflective records, voice their opinions regarding educational issues, and express their feelings and emotions vis-à-vis academic study. Moreover, since scholars have portrayed the blog as a space where discourse can occur among learners, between learners and instructors, as well as between learners and the larger internet community (Sim & Hew, 2010), it seems that teacher education may consider blogs to serve as platforms for encouraging both online and face-to-face communication and social interaction.

The research corpus of blogs' integration in teacher education focus particularly on using blogs at a specific point in time during the teacher-training course, after which the blog is archived and forgotten. The current study examines student teachers' perceptions regarding their experience of rereading blogs they had written earlier in the teacher education program. To this end, 14 student teachers who were about to complete their third year of studies were asked to reread their freshmen year blogs and document the feelings and thoughts that emerged through this procedure. Next, participants were interviewed about the contribution of both the blog and the procedure of rereading it.

Qualitative analysis of the interviews revealed that participants enjoyed rereading their blogs, were able to identify their progress in terms of their professional identity (writing skills, professional use of reflective journals, and classroom management) and felt that the rereading process had strengthened their teaching and writing efficacy. Recommendations for teacher-educators regarding the rereading of blogs are discussed.

Keywords: Blogs, teacher education, self-efficacy, reflection, pre-service student teachers.

TOWARDS SEAMLESS LEARNING: BRINGING LANGUAGE AUTOBIOGRAPHY TO EAP PRACTICE

Lect. Tatjana BICJUTKO
Prof. Indra ODIŅA

Since the "narrative turn" in the early 1990s, life narratives, or first person accounts of personal experience in story form, have inspired interest in a variety of disciplines and have become most popular sources of data for qualitative research. Narrative is a natural form to communicate meaning, and narrative knowing (Bruner 1987) is both an aid to reflection and a tool for analysis. With narrative enquiry and life history research widely used as two major approaches to narrative work (Goodson, Gill, 2011: 17), the value of personal narratives/autobiographies in teaching/learning academic discourse is rarely discussed.

Language autobiography is a distinct type of personal narrative addressing its author's experiences with languages and their contexts, and as such helping to make sense of language learning experience as a whole. Having received a significant attention as a data collection method in applied linguistics, language autobiographies also "represent a tool for teaching a foreign language and for student education" (Bonta & Galita, 2011: 9), and might prove to be effective in teaching/learning English for Academic Purposes (EAP). Furthermore, the development of digital technologies has lead to creating new, smart learning environments and to opening access to fuller immersion in personalized and seamless learning (Zhu & Yu, 2016). Then the question is how to create a blended space more conducive to bringing language autobiographies to EAP practice.

Thus, reviewing theoretical writings and empirical studies on the topic, the present study focuses on applicability of language autobiography as well as teaching/learning challenges it presents as a tool/method for teaching/learning English for Academic Purposes (EAP). Re-thinking language autobiography in the context of smart education, the study aims at providing tentative guidelines for its use in EAP hybrid courses.

Keywords: *linguistic/language autobiography, personal narrative, EAP, smart learning environment.*

DEVELOPING PRIMARY SCHOOLCHILDREN'S CREATIVITY IN MOTHER TONGUE LESSONS: TEACHERS' ATTITUDE

Assoc. Prof. Dr. Nijole Braziene
Asocc. Prof. Dr. Daiva Karkockiene

Based on research, according to society's attitude towards creativity and the results of creativity, Lithuania's situation is one of the worst in the EU, and the progress is not sufficient. There may be various causes of the gap in creativity and limited progress, the main of which – insufficiently used possibilities while developing children's creativity at school.

Primary teachers are educators on whom children's further learning and their future success depend to a great extent. *The General Teaching Plan for the Primary Education Curriculum* (2017) permits teachers to decide how to organize the educational process and model the contents of education striving for the aims of the primary education curriculum, it is possible to choose various ways of the integration of the contents of education, etc., i.e., teachers are given freedom to creatively plan and organize the educational process.

In the process of mother tongue education, creative tasks with a spoken and written text are important. Teaching a text is the field of language education that is most closely related to creativity development. Nevertheless, referring to the national subject reports of the research on schoolchildren's achievements, it can be seen that the results of creative text tasks of schoolchildren who are about to finish primary school are low.

The research attempted to find out how primary teachers organize the lessons of creative tasks and how they establish conditions for the formation of schoolchildren's creative skills. Referring to the results of the research, it was planned to identify the fields of making creative text works more effective. 129 primary teachers of the Lithuanian town X participated in the questionnaire survey.

Having generalized the results of the research, the following conclusions can be drawn: primary teachers understand that to develop creativity, it is important to create the environment of creative tasks and encourage schoolchildren to work creatively; teachers state that pupils write creative tasks of various levels. However, it should be noted that tasks for creative text works for pupils are only limited with those presented in textbooks; schoolchildren's creative activity is not organized consistently and purposefully; usually only a part of the lesson's time is given for that; teachers rarely integrate creative tasks with other subjects; tasks are usually assigned for homework without any or sufficient schoolchildren's preparation to perform them. Teachers are not satisfied with the results of schoolchildren's creative tasks; schoolchildren do not like such lessons.

PILOTING A MODEL FOR TEACHER COMPETENCE DEVELOPMENT IN SCHOOLS

Anete Butkēviča

Līga Čakāne

Inese Dudareva

Dace Namsone

This research presents a school-based comparative case study for piloting a model of teacher competence development that is developed by the authors in their previous research project. The model represents the interaction of goal setting and competence management in organizations and this research paper is emphasizing parts of the model related to teacher competence assessment and development done at school. The model consists of interlinked elements, from which most topical for this research are: Employee Competence, Competence Assessment, Competence Assessment Method, Competence Development Plan, and Competence Development Method.

Compulsory education curriculum reform introduces teaching 21st century skills bringing in significant changes to how teacher work happens in Latvia. It highlights the role of school teams to plan not only whole-school development but also teacher's personalized professional development to implement necessary changes.

The model is being piloted in 7 schools in school year 2018/19. In autumn semester 2018, outside experts (the authors) started the comparative case study as an intervention in 7 selected schools for developing a teaching performance assessment framework for teaching 21st century skills that helps determine a teacher's level of competence (from 0 to 4) according to the criteria developed. Teachers were assessed by using an online knowledge and beliefs test and lesson observation, both instruments based on the mentioned framework. At the next stage, in spring semester of 2019 the intervention continues. The school teams are given first teaching assessment results and the schools select teachers who are assigned a personalized competence development plan based on their assessment results. Additionally, instructions are given by the experts how to realize this competence development plan. The comparative case study in spring semester 2019 happens through gathering and analyzing data such as interviews with school teams, lesson observations, field notes from school workshops. The aim is to investigate current trends of how school teams perceive such a model, how they are managing it and what may be the risks and benefits of its implementation in general school practice.

This paper presents a research project still in progress and will seek ways how such a model may be implemented by both non-formal and formal education providers (schools).

Keywords: teacher competence development, teaching assessment, comparative case study, 21st century skills

MANAGEMENT OF INTELLECTUAL CAPITAL IN THE CONDITIONS OF TRANSFORMING EDUCATION

Marina Čelika, Valentina Djakona, **Olga Verdenhofa**, **Jevgenija Dehtjare**

The aim of the article is to justify the directions of the management of intellectual capital of a higher educational institution in the conditions of transforming education, as well as to analyse the methods of intellectual capital assessment.

To achieve the aim of the work both the analytical and empirical research approaches are used to analyse the methods of intellectual capital assessment together with the practical experience gained through the participation in conferences, seminars and work in a higher educational institution.

Key words: intellectual capital, higher educational institution, intellectual capital measurement methods.

INTRODUCTION

In modern conditions the competitive positions of a private higher educational institution are first of all determined by the ability to activate its intellectual capital. The intellectual capital of a university proves to be the most significant factor in providing high-quality higher education, preparation of unique human resources, and in the production of new knowledge, scientific product and technologies. Under the condition of effective management, intellectual potential can be transformed into intellectual capital. The formation of intellectual capital of a higher educational institution is based on finding ways to effectively create and use knowledge and information.

Theoretical framework

The major factor which forms the intellectual capital of an educational institution is the degree to which its intellectual capital is realised and the intellectual resources available in the HEI. The effective management of intellectual resources involves the analysis of the following problems:

1. the selection and training of the persons who are able to realise their intellectual potential in the institution;
2. the creation of a system of stimulation and development of the creative activity of the employees who are involved in the creation of intangible assets.

The main problem of measuring systems is the absence of scientific accuracy during the measuring of social phenomena. This creates a fundamental discrepancy between the expectations of a manager, the promises of the methods' developers and the actual achievements of the systems, making all these systems vulnerable and open to manipulation.

Conclusion

The authors of the article propose to take into account the aims and objectives of a higher educational institution in the process of its intellectual capital

management. Training and management must be the aim of measuring and assessment of employees' intellectual abilities. Intellectual abilities of employees shall be identified, assessed, and investments in them must be made according to the aims and objectives of a higher educational institution.

ARTISTIC INQUIRY IN HIGH SCHOOL LITERATURE LESSONS

Daiga Celmiņa

The Studies of Literature subject is connected with the specifics of literature as the art of words and the cognitive abilities of a particular age group. It is crucial that the cognitive process during literature lessons has a personal significance for pupils; therefore the teacher should engage in artistic inquiry together with the pupils, taking up activities that aim to develop creativity and co-creation. Creative tasks in literature lessons not only develop logic, rationality and analytical skills, creative tasks help to involve pupils in imaginative, emotional and reflective processes. Such activities cultivate critical thinking and associative skills, stimulate imagination and encourage self-discovery and self-expression. Concepts, opinions and conclusions are not the only cognitive forms - there are images (creative mental models) and thought experiments as well.

Therefore the process of studies can be both reproductive and productive; problem solution, i.e. analysis and synthesis using literary fiction and, interdisciplinarily, other arts, is at the very heart of artistic inquiry process as applied to literature studies. Solution of unconventional tasks posed by fiction studies requires not only critical thinking but also creativity and creation of new values. During literature lessons, the literature teacher encourages pupils to engage in artistic inquiry correspondent to the needs and abilities of their age group, taking in account the importance of stimulating pupils' aesthetic needs in a value-oriented learning process, development of pupils' artistic perception and creative thinking, reproductive and productive imagination, cultivation of artistic empathy and compassion, development of skills in artistic analysis, collaboration, encouragement of self-discovery and self-expression.

Keywords: creativity, creative thinking, empathy, imagination, literature studies, process of artistic inquiry, self-expression

THE ROLE OF ONLINE ENVIRONMENT IN THE SCHOOL - FAMILY COMMUNICATION

Otilia, CLIPA, Valentina, JURAVLE

The study focused on the issue of increasing communication efficiency between school and family using the online environment. The aim of the study is to evaluate to what extent the online communication environment can improve the process of communication between school and family. The study is quantitative, based on the questionnaire which was distributed in the online environment to teachers and parents. Both questionnaires showed that the communication relationship between school and family is not very efficient; this being the reason for hypothesizing that online communication between parents and teachers could be a solution to this issue. In this context, both investigated samples foresee the benefits of the communication relationship between school and family in the online environment and do not consider that information transmitted like this is different than the one transmitted in a direct conversation.

Keywords: communication, school, family, efficiency, online environment

THE AUGMENTED REALITY AND THE ROMANIAN PRIMARY EDUCATION

Lecturer PhD Ing. Gabriel CRAMARIUC

What is the impact of digital technology on Romanian primary education? Although most students who live in cities have access to performing mobile devices, they use them at school during breaks, less for educational purposes, but rather for socializing and fun. How do we bring in the classroom one of the most modern technologies, Augmented Reality (AR)? How do we convert students' smartphones into AR tools used for learning? This paper explores the possibilities of using available AR applications and the pedagogical approaches to integrate augmented reality experiences. In this analysis I studied the responses of a group of children aged 6 to 10 who attend an educational center. Children used some AR applications available on mobile devices in order to acquire age-specific educational notions. Based on these results, the educational potential of AR applications is discussed and the factors influencing their widespread use in the classroom are presented.

AN APPLICATION OF MODERN TECHNOLOGICAL SOLUTIONS IN ORDER TO ENHANCE THE PROCESS OF DISTANCE LEARNING.

Dr.Ed. Jevgenija Dehtjare, Mg. Jekaterina Korjuhina, M.Ed. Ilona Gehtmane-Hofmane

An approach to the development of modern process of distance studies in the higher education requires application of most up-to-date tools and technologies. In fact, distance education mainly proceeds online and became a synonym of a technological progress and globalization development. Nowadays it is possible to study any time and anywhere thanks to the dissemination of various online educational platforms such as Moodle and others. However, a long time experience of working with distance students and gained feedback during the communication process make a necessity to discuss a statement: modern distance and online education must become more communicative and flexible; ensuring fast connectivity and a possibility to asses students' needs, it should also apply individual approach.

The theoretical framework of the article includes the analysis of an increasing role of the communication process in distance education. Different communication approaches, both formal and informal are investigated taking into consideration needs, demands and abilities of the communication process participants. A modern higher education institution (HEI) should fully apply most of modern communication tools with an aim to increase its competitiveness on a market of educational services. Globalization and other processes with direct and indirect impact to modern services within the field of higher education should be taken into consideration as well. The study consists of the introductory part, where main assumptions of the research are stated, theoretical part, where main subjects of the research are defined, practical part where existing tools that could be applied to foster communication process to enhance distance studies are observed, and conclusions, where main findings are summarized and proposals to improve the process of distance studies are given. Main methods of the research include analytical observation of the current theoretical issues and the empirical approach based on practical experience gained during participation in the online learning process. The interest to the study is stimulated by the practical experience and direct involvement into the management, organization, control and implementation of the online learning process and day-to-day communication with other participants of the communication within the distance studies network.

Keywords: distance studies, online learning, communication process

DEVELOPMENT OF LEARNING MOTIVATION FOR GENERATION Z

Santa Dreimane

Generation Z is represented by people born between 2000 and 2012. This generation has grown in different circumstances from generations before. Technologies are an indispensable part of their lives; they shape their world perception, needs and interests. It is necessary to take into account the fact that it is getting more difficult to get and hold the attention of young people and the use of technology is a "language" that they understand. In order to engage and motivate learning of younger generation, teachers need to search for new approaches and methods to apply in the educational process. There are some new approaches like serious games, gamification, virtual reality, augmented reality, simulations, etc. that have a good impact on learning motivation and engagement development.

The aim of this research is to identify opportunities to develop learning motivation for Generation Z, the latest and most appropriate motivation theories in the contemporary context. To do so, literature review was chosen as a research method to review articles published in the last five years (from 2014 to 2018), obtained via "Scopus" database, using keywords "learning motivation" and "Generation Z" to select research units. For the systematic analysis of publications, the English language and open access were chosen to reduce the number of articles to review.

To better understand the needs and thoughts of Generation Z about their learning motivation and opinion about the educational process, the survey was carried out among secondary school students (class 10th to 12th) in Latvia, Riga.

Keywords: motivation theory; learning motivation; Generation Z

VIRTUAL REALITY LEARNING EXPERIENCE EVALUATION TOOL FOR INSTRUCTIONAL DESIGNERS AND EDUCATORS

Lana Frančeska Dreimane

For the past decade Virtual Reality (VR) has transformed human-computer experience and in fact humanised it much further than ever before. Virtual immersive experiences – either reality or fantasy based - allow us to interact with content and other people in a way that previously could have been possible only in science fiction. Today, with emergence of Virtual Learning Environments and Virtual Learning Experiences, instructional designers and educators have the opportunity to move beyond content, beyond hierarchies and set environments - classroom or desktop - and focus on the context and experience of learning. In the field of VR research there are two main categories - technical solutions and applications. This study will discuss the technical solutions in the context, yet the focus of the research will rather be on the latter, namely, applications and specifically applications for learning purposes. There is a significant body of research available on the technical solutions and limitations of VR technology, however, still, in 2019 it is very challenging for educators and instructional designers to find and navigate the guidelines on how VR learning experiences should be designed in order to ensure that the set learning objectives are achieved. Thus, the major problem of VR learning research today seems to be the lack of understanding of general principles that govern the process and how they are interconnected with the existing knowledge about leaning principles, each other and existing curricula. With the explosive development in the field of VR learning, there is a need for systematisation of pedagogical principles that govern and facilitate learning in VR. Thus, this paper will present a Virtual Reality learning experience evaluation tool consisting of 4 macro-level criteria, 21 criteria, and 90 sub-criteria that will highlight the pivotal aspects that should be considered by instructors and educators who wish to successfully design and apply VR learning experiences.

Keywords: *Virtual Reality, virtual reality learning, immersive learning, insturctional design*

THE CONTRIBUTION OF TRANSNATIONAL LEARNING TO THE PROFESSIONAL DEVELOPMENT OF TEACHERS

Gunita Elksne,

Prof. Zanda Rubene

The study analyzes the concept of transnational learning in the context of professional development (after formal education) for teachers. The aim of the study is to theoretically reflect on transnational learning as a tool for the complex, multi-dimensional professional development of teachers in the 21st century.

Lifelong learning is one of the goals by 2030, which is defined by UNESCO. In this context, the focus is on the quality of education, where the emphasis should be on the professional development of teachers, the dynamics of knowledge. Teacher Professional Development develops and changes both vertically and horizontally, according to the needs and values of the knowledge society: from passive to active solution search, to experience-based learning.

In the process of research, using the method of analysis of scientific literature, conclusions have been drawn on the role of transnational learning in the professional development of teachers.

The study examines the professional growth of adults in 3 different theories. Drago-Seversone distinguishes four directions in the professional development of the teacher: instrumental, socializing, self-authoring and self-transforming. K. Koellner and J. Jacobs distinguish between two directions of development: specific and adaptive, while Kegan sees 5 stages in professional development: Impulsive Me, Imperial Me, Socialized Me, Self-Authoring Me, and Self-Transforming Me. Each of the theories focuses on different things, but all point to the need to develop personal qualities of the teacher, e.g. the ability to be flexible, to conduct self-analysis, to evaluate, emotional intelligence, problem-solving, organizational skills, collaboration.

The authors' conclusions on the use of the concept, theories, typology, forms and methods related to transnational learning are based on the findings of INonaka and Takeuchi, SECI organizational creation theory, Bruno-Jofré, and Johnston, as well as Roman.

While studying previous researches on transnational learning available at EBSCO and Web of Science databases, it can be concluded that the contribution of transnational learning to the professional development of teachers has not been studied very closely. Transnational learning contributes to the professional development of teachers, as required by the European education policy of the 21st century, and is highly relevant to the modern era of globalization and the values and needs of society and individuals.

Keywords: lifelong learning, professional development, transnational learning

IMPACT OF AFTER SCHOOL ACTIVITIES FOR ENHANCING CHARACTER GROWTH MINDSET: AN INTERNATIONAL STUDY

Manuel Joaquín FERNANDEZ GONZALEZ

Pre-adolescence is a key period in moral identity development (Hart & Fegley, 1995). Interventions in extra-curricular activities are closely linked to children's character building. This project piloted an original intervention in the field of virtue education in collaboration with an international network of faith-based NGOs. The intervention design was based on self-of-virtue theory (Fernandez González, 2019). The focus of the intervention was on the cognitive component of a self-of virtue, concretely on: 1) character growth *mindset* (Dweck, 2000), i.e., understanding the possibility of improving the character; and 2) character growth *practical knowledge, i.e.,* knowing what to improve and how to do it.

The intervention took place in July 2018, within a summer camp with 45 boys (10 - 15 y.o.) from Latvia, Estonia, Finland and Sweden. It combined "taught" and "caught" elements. Great importance was given also to the staff's buy-in' into the project. The research question for the evaluation of the intervention was: "What impact does participation in a one-week after school summer camp have on the development of 10-15-year-old participants' character growth 'mindset'?" A survey research design was chosen for impact evaluation, using mixed methods for capturing the voices of children and staff.

Parents and children informed consent was requested and analysis was done at the group and not the individual level. The questionnaire had 24 items adapted from the Character Growth Mindset Scale (Dweck, 2000) and from the interpersonal section of the Character Growth Card (Duckworth *et al.*, 2014). The interview schedules addressed volunteers' views on the impact of the intervention, their motivations, preparation, received support, and suggestions. Quantitative data were analysed using SPSS 21. The data set reliability was high (Cronbach's Alpha = .939). Interviews were analysed using MS Word software.

Comparing pre-test and post-test, the mean for each question was slightly higher after intervention. Statistically significant increment was found in questions "*Do you think that everybody can become a better person?*" (p=.002) and "*Do you know how to*

improve your personality?" (p=.008). Triangulation of the changes found in children's beliefs with leaders' opinions about the impact of the intervention on children's beliefs confirmed these results.

Some recommendations for further implementation were put forward. With necessary improvements, such a program might probably enhance children's sustainable understanding of the possibility of growing in virtue and how to do it. This project was financed by the ERDF grant Nr.1.1.1.2/VIAA/1/16/071.

EXPLORING THE BACKGROUND OF TEACHERS' ERRORS AND SOLVING THEM THROUGH MENTORING

Beatrix Fűzi

The paper presents the results of a research project dealing with the analysis of the work of 30 primary and secondary school teachers and their mentoring, focusing on the pedagogical errors occurring in the classroom, exploring the causes of those errors, as well as their solution.

At first, the participating teachers completed questionnaires about themselves, and all of their students (697 persons) about their teachers. On the basis of the three main indicators obtained from the questionnaires – effectiveness, quality of the teacher-student relationship, teachers' and students' sense of well-being related to their shared lessons – I placed the quality of the work of the participating teachers into three categories: above average, average, below average.

As the next step, I observed the work of all participating teachers in all of the classes they teach (137 lessons), and analysed my findings together with the teachers. In the course of the qualitative analysis of the lessons and my notes on their analysis, I paid special attention to studying the problems, conflicts and errors that recurred or regularly came up during the teacher's activity.

The types and the frequency of the errors were significantly different in case of the teachers in the three different categories. Further, there was a noticeable difference also in the teachers' interpretation and handling of problems and errors that recurred or came up regularly.

In case of teachers whose quality of work was above average, pedagogical errors were rare. They experience difficulties as a source of inspiration.

On the basis of the joint analysis of the lessons, it can be concluded that teachers whose quality of work was average or below average sense the disharmony caused by the pedagogical errors. It turned out that they attempt to handle these errors in a variety of ways, often "convulsively" and unsuccessfully. The errors that become regular reduce the quality of teacher's work, and teachers lose their self-confidence and sense of competence.

In order to live with the long-lasting and/or regularly recurring pedagogical problems, the teachers use various defence mechanisms and formulate explanations. Overcoming these is indispensable for the success of mentoring and the raising of the quality of the teachers' work. I present a few of the strategies that can be successfully used to eliminate resorting to defence mechanisms. Through some specific examples, I demonstrate the limitations and opportunities of strategies that rely on cognitive and emotional elements.

Keywords: *mentoring, classroom observation and analysis, quality of teachers' work, pedagogical failures*

OBSTACLE OR CHALLENGE? THE CHARACTERISTICS OF UNIVERSITY STUDENTS' LEARNING AND MOTIVATION FROM THE PERSPECTIVES OF TEACHERS AND STUDENTS

Beatrix Fűzi, Erzsébet Jármai

Higher education is struggling with the consequences of "mass production" that has become characteristic in recent decades. The challenges include large group sizes, impersonal teacher-student relationships, an increase in the number of students with specific learning difficulties. Our research and development project (EFOP-3.6.1-16-2016-00012) aims to help teachers in economics programmes in the formation of attitudes supportive of students and in the development of the efficiency of teaching.

We intended to explore teachers' perceptions of the students, with special attention to their motivation and the characteristics of learning. We were curious whether teachers identify various student types and if they take them into consideration in their teaching activities. We asked students to provide self-characterisations along the abovementioned factors in order to make a comparison between the teachers' and the students' perspectives possible.

We surveyed teachers and students of six Hungarian universities. The teachers' questionnaire was completed by 210, while the student's questionnaire by 1130 respondents. We subjected the obtained data to a quantitative analysis. We also supplemented the above with the qualitative analysis of 41 in-depth interviews conducted with teachers.

Almost all teachers agreed that there is a perceptible increase in the differences between students. The teachers' responses outlined a few student types, as well as some typical attitudes in reaction.

While the majority of the teachers approach the experienced phenomena as a challenge, or at least as a task to tackle, and therefore actively look for solutions, a smaller portion considered them as an unsolvable problem, and therefore do not even experiment with solutions.

The interviews with the teachers shed light on the significant differences in terms of how nuanced the teachers' images of students are. An increased sensitivity to students' characteristics is present among the teachers, but this in itself is not sufficient for effectively handling the issues at hand. One-fifth of the teachers approached students' characteristics in a schematic, simplifying fashion, and some teachers were quite dismissive about them.

The sharing of best practices is justified by the fact that more than a half of the teachers attempt to incorporate elements based on student characteristics into their teaching activity, but in the absence of pedagogical consciousness and systematic self-reflection they consider the effectiveness of such practices as haphazard.

Marked differences can be discovered between the opinions of teachers and students.

We incorporated our findings into a training for teachers and a methodological publication.

Keywords: *university students, university teachers, motivation, learning, student characteristics*

DEVELOPMENT OF ADAPTATION TOOLS FOR PUPILS WITH AUTISM SPECTRUM DISORDER IN MICROSYSTEMS

Alvyra Galkiene

Giedre Puskoriene

The incapacity of children with autism spectrum disorder (ASD) for adequate and flexible interaction with the environment reflects their lack or inadequacy of adaptation tools needed for the adaptation (Preis, 2007), and their constant state of stress when interacting with others (Hemlin, 2016, Hoffman, 2013). Attwood (2013) states that even high intelligence of a person with ASD does not ensure efficient application of stress management strategies. The educational environment of a child encompasses the interacting participants of an educational situation as individual microsystems, in which the same child takes part: family, school, and peer community. Through their interaction, the microsystems form mesosystems, which have an indirect impact on the child's wellbeing and participation in social environment. The participation of a person without appropriate adaptation tools in these systems is limited and suggests their continuous sense of insecurity. The way out is removing social barriers from the environment as well as developing the person's system of adaptation tools.

The research looks into the possibilities of the development of adaptation tools for children with ASD in the framework of their surrounding microsystems. The research included five mothers and teachers of children in the first and second forms. The research data was collected with the method of structured interview, and analysed with the method of qualitative content analysis.

The research results revealed that in a school microsystem, the essential role in developing a child's adaptation tools belongs to the teacher's attitudes, their application of efficient education principles based on in-depth awareness of the child's needs, and the teacher's ability to strengthen interpersonal relationships based on interpersonal awareness among peers. The mesosystem formed of the school and family microsystems not only encourages the development of the adaptation tools in a child with ASD but also helps mothers restore their inner harmony and engage in efficient participation in their children's education processes.

Keywords*: autism spectrum, adaptation tools, microsystem, mesosystem*

PROBLEMS OF IMPROVING THE MARKET MECHANISMS TO REGULATE THE MARKET OF EDUCATIONAL SERVICES

Julija Galkina, Olga Verdenhofa,
Valentina Djakona, **Jevgenija Dehtjare**

The aim of the article is to substantiate the need to improve the mechanisms for regulating the market of educational services in the context of transforming education.

To achieve the aim of the work the analytical research method is used to analyse the mechanisms for regulating the market of educational services, and the empirical approach based on practical experience gained through the participation in conferences, seminars and work in a higher educational institution is applied.

INTRODUCTION

Educational services market is an important part of the economic system of any country. In the new economic relations the growing role of education requires both the reviewing of the set of tools for educational market regulation and searching for the optimal combination of the state and market regulatory mechanisms.

Theoretical framework

The educational sector management primarily impacts public education, but it cannot avoid affecting market relations. Practice shows the positive correlation of the level of educational system development on management efficiency and the optimal balance of the public and private sectors in a country. It is these issues that require improvement, further study and the development of new directions and mechanisms for regulating the educational services market.

In the process of globalization, educational system transforms under the influence of many factors. Increased competition, including on the global scale, can be considered one of these problems.

Financing is the next important problem of educational system development in any country. Unfortunately, in Latvia the state policy tends to reduce the level of higher education financing, which leads to adverse effects even in the situation of the growing financial autonomy of higher educational institutions. Respectively, such conditions require both the modernization of the educational system of Latvia in accordance with the global and European standards, and the maintaining of its strategic focus on the development of the economy of Latvia itself.

In each country the directions and dynamics of the development of educational system are governed by state regulatory policies, certain priorities and aims, which in turn shall be coordinated with the priorities of the labour market development. Theoretically, the structure of the educational services market should be aligned with the potential structure of the labour market with a time span of 5-7 years to detect potential opportunities of labour demand and supply.

To understand the main problems of the development of Latvian educational system its strengths and weaknesses are characterized, which allows determining the opportunities for its effective development.

Conclusion

The assessment of the situation on the educational services market in Latvia makes it possible to make conclusions regarding the need to improve the mechanisms of its state regulation. To increase the efficiency of the educational services market, the main problems of its functioning are determined. These problems include globalization processes combined with the need to preserve the national characteristics of the education system, as well as the compliance with the labour market requirements. Theoretically the structure of the educational services market must be aligned with the potential structure of the labour market with a time span of 5-7 years to detect potential opportunities of labour demand and supply.

Keywords: educational services market, market-based regulatory mechanisms, financing.

INTEGRATING EDUCATION, AI TECHNOLOGY, AND SDGS: A 3-PRONGED COLLABORATION

Ray Gallon, Maria Nieves Lorenzo (Neus Lorenzo)

When the United Nations states, regarding SDG 17, that "*A successful sustainable development agenda requires partnerships between governments, the private sector and civil society,*" it is calling for education to involve many social agents and fulfill multiple functions in society. This is especially important as artificial intelligence becomes a vector of rapidly accelerating change.

Although preparing young people for their working lives is a required role for education, it is clear that developing principles and values for personal and cultural sustainability is the first goal for human generational renewal. As the UN states, "*These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the centre, are needed at the global, regional, national and local level.*" Ethics becomes a central issue in the development of artificial intelligence for implementing equity, inclusion, and efficiency in secure educational environments.

In this paper the authors present organisational paradigms to face the challenges of artificial intelligence and similar technologies in educational environments, through a model for tripartite collaboration between:
- Users of the educational system (students, parents, adult learners, etc.)
- Policy makers (governments, administrations, educators, resource centres, etc.)
- Social stakeholders (municipalities, associations, enterprises, NGO's, etc.)

We also present a case study that shows how students at schools can discover and understand aspects of every SDG using a transmedia application. The aim is also to awaken awareness of the challenges to using smart learning tools, e.g. personal privacy, gender equality, inclusiveness, personalisation, collaboration, ethical behaviour.

Participants will learn about:
- Organisational strategies for co-responsibility and social action when implementing smart technologies in educational contexts
- Practical activities to develop skills and improve subject matter knowledge, and how they can be extended to cover multiple SDGs.
- Main concepts of smart pedagogy connected to emerging technologies for knowledge building and community building.

The aim of this session is to invite participants to reflect on the best way to integrate education, smart pedagogy, and the common international goals represented by the SDGs. It is designed to show how serious, integrated collaboration among public institutions and private organisations can help improve teachers' and learners' executive skills, and their ability to build integrated conceptual approaches.

GROUNDED THEORY METHODOLOGY FOR UNDERSTANDING HOW EQUINE ASSISTED LEARNING CONTRIBUTES ADULT LEARNING

Ilona Gehtmane-Hofmane

Abstract. The aim of this article is to provide the theoretical review of Grounded Theory methodologies and their application in research for understanding how adults learn when the learning takes place through guided human and horse interaction during an Equine Assisted Learning session. There are many debates about similarities and differences between Glaserian Grounded Theory (GGT), Strauss and Corbin Grounded Theory (SGT) and Constructivist Grounded Theory (CGT). All three approaches have been analyzed with the aim to understand similarities and differences between them, as well as original ideas for conceptualizing these approaches and to select Grounded Theory approach that best matches the research question, i.e. how adults learn when the learning takes place through guided human and horse interaction during an Equine Assisted Learning session.

Keywords. *Grounded Theory, Equine Assisted Learning, adult learning*

WHAT DO TEACHERS DO TO PROMOTE STUDENTS' READING LITERACY AT 4TH GRADE? – EVIDENCE FROM IEA PIRLS 2016 STUDY

Andrejs Geske
Antra Ozola

Reading skills, which a child learns from an early age, are crucial for the student's success or failure in subsequent school years, as literacy is closely related to all other school subjects. Learning to read and promotion of reading play an important role in the development of the personality and attitudes of the child.

The teacher is the one responsible for applied techniques of teaching and learning to read, and methods that are used purposefully lead students to the understanding of the text. It is of great importance for the teacher to have a wide arsenal of diverse educational methods and experiences. Primary teachers should have a broad theoretical knowledge base and also be able to teach different reading strategies to help students to reach their full potential as readers. An important factor in developing attitudes towards reading is the ability of reading literacy teachers to get their students to become interested in both - literary works as a source of information and joy and reading as an activity in general.

The aim of the study is to find out what activities the primary school teachers in Latvia apply to promote their students' reading literacy and how those methods relate to students' achievements in reading. In the study a statistical group comparison is performed using IEA PIRLS 2016 data from teacher questionnaires along with the information about student achievement.

Keywords: PIRLS, reading literacy, teachers, methods, 4th grade

SHIFTING THE FOCUS OF PROFESSIONAL DEVELOPMENT: FROM INDIVIDUAL TEACHERS' COMPETENCES TO A SYSTEM OF CONTEXTUAL PROFESSIONAL ACTIVITY

Līva Goba

Teacher quality and teaching quality have been stated as key assets for the quality building of an education system (European Commission, 2013; Guerriero, 2017). Therefore, in the past decades policy makers have increasingly focused on teacher professional development.

Professional development activities are typically aimed at competence building; however, they have limited power to influence the practice – there are no universal incentives for teachers to apply the mastered competences. Despite the best efforts of policy makers to re-shape the teaching practice, large educational reforms have limited influence over practices and cultures in state-governed schools (Labaree, 2012). There are systemic constraints that need to be addressed in order to implement an innovative learning culture as a school-wide phenomenon in contrast to individual efforts.

The aim of the proposed paper is to compare two conceptually different views on teacher professional development: the traditional competence approach and the model of the system of contextual professional activity as proposed by the researchers of cultural-historical activity theory (Engeström, 1987; Engeström & Sannino, 2010). The competence model is aimed primarily at the all-round development of an individual; in contrast, the activity system model analyses the actual occurring professional activity in its systemic context. As the competence model helps to identify the areas of professional development for an individual teacher, the activity system model lets systemic contradictions in the working practice be identified, analysed and addressed by modelling solutions. In addition, the competencies of individual teachers of an activity system (comprising the teaching-learning process in a particular school) may be considered interconnected and complementary.

The study concludes that the competence approach is more suitable for teacher training and identification of the required competence spectrum to implement a certain type of curriculum, whilst the activity systems approach is suitable to plan and implement professional development as an effort to redesign work collaboratively at a school level, focusing on the improvement of work practices according to the identified issues, constraints, contradictions and collaboration opportunities.

REFLECTION ON PRE-SERVICE TEACHER PROFESSIONAL PERFORMANCE FOR PROMOTING TRANSDISCIPLINARY LEARNING IN PRIMARY EDUCATION

Gunta Siliņa-Jasjukeviča, Ilze Briška

Transdisciplinary learning is becoming a significant topic/ issue in today's Latvia in the context of the development of competence-based approach in education. However, there are no useful tools for evaluation of teacher's professional performance related to it.

The **aim** of the study is to create well-structured and applicable instructions for teacher's self-reflection - how to realize trans-disciplinary learning in primary school.

The theoretical framework of the study is based on social-constructivism theory, which substantiates the significance of student's experience, reflection, and social and cultural contexts in transdisciplinary learning. Principles of transdisciplinary learning in primary education and contradictions of description and evaluation of competence in Latvian educational environment are analysed in authors' previous articles.

In order to develop a tool for effective reflection and evaluation of teacher's performance, qualitative research was performed. The data was derived in interviews. Selected teacher education program students were asked to reflect on their transdisciplinary teaching practice in different ways: by using their own words and by completing different types of instruction, including holistic and analitical ones.

The study sample consists of 10 teacher education students, highly assessed by experts. The content analysis of the data was performed. The questions which provoked the most well-structured, personally significant and contextual reflection of pre-service teachers were selected. These items were brought together in an experimental self-assessment form, which will be tested in further research.

In conclusion, suggestions for the model of evaluation of teacher's professional performance for promoting transdisciplinary learning are discussed.

Keywords: transdisciplinary learning, teachers' professional performance, primary education, self-reflection

ADULTS' REFLECTIONS ON BASIC EMOTIONS ABOUT EDUCATION: A NECESSITY FOR QUALITY TEACHING?

Ineta Helmane

The article describes and analyzes theoretical and empirical materials about the adults' emotions in the process of education as well as teaching/learning in school. The aim of the article is to investigate the basic emotions experienced by adults when learning skills and knowledge in school, and highlight the factors arousing emotions in learning skills and emotions in school. The article analyses the data obtained in an empirical research on the emotions experienced by adults during education process in school. In questionnaires and semi-structured interviews adults reveal what gave them pleasure and positive emotions in the classroom, as well as what made them experience negative emotions. According to the analysis of the empirical data, there were highlighted the factors which caused positive emotions when learning skills and knowledge in school; however, the failure to comply with these factors caused negative emotions in adults as pupils.

As a result of the research, it is possible to select the factors facilitating positive emotions while realising the teaching process in school: a curriculum which is easy for a pupil to understand and perceive, which is encouraging, in good arrangement, intensity and at an appropriate difficulty level; efficient techniques of work and visual aids used in the acquisition of skills; also the pupils' activities which are practical and independent; diverse forms of work, methods, especially the method of play used in the acquisition of skills, which encourage a pupil's active participation and mobilization of their potential in order to achieve the desired objective; communication with peers and the teacher; evaluation of a pupil's progress and achievements by the teacher, peers, also self-esteem. Consideration of these factors evokes positive emotions: joy, surprise, interest which in turn mobilize pupils' mental and physical energy for the acquisition of skills and knowledge in the learning process. Discussions and reflection on psychological and pedagogical factors were found to mitigate long-standing negative emotions and develop improved dispositions for learning, to teach and to learn skills and knowledge qualitatively.

Keywords: *adults, basic emotions, school*

MEETING THE NEEDS OF IMMIGRANT YOUTH NEWCOMERS IN A RURAL CANADIAN COMMUNITY: AN INNOVATIVE AFTERSCHOOL APPROACH

Ingrid Robinson, Daniel B. Robinson, Vanessa Currie

Immigrant youth newcomers often encounter a variety of challenges as they adjust to living in a new country. They can feel isolated as often few opportunities exist for them to build relationships with other youth, especially in rural locations. Despite the presence of "resettlement" programs in both rural and urban communities that provide supports for new immigrant families to navigate through cultural, social, and economic challenges, few to no programs exist to support the needs of immigrant youth. However, recently within one Atlantic Canadian rural community, researchers worked collaboratively with immigrant youth newcomers to develop innovative after school programming with the aim of improving their sense of belonging in their new communities. This paper identifies the results of a single-case study participatory action research project, namely photovoice, with immigrant Syrian youth newcomers involved in an innovative afterschool program. The participants included both male and female Syrian youth newcomers aged eleven to nineteen. Data collection included the use of observation notes, focus group interviews, arts-based participatory research tools, and photographic analysis. Results from the data to date have revealed the positive impact of participation in the program. The findings identified that when immigrant youth newcomers were integrally involved in the development, implementation, and enactment (participation) of extracurricular opportunities, the youth not only became more engaged in their local communities but they sought out ways to continue to contribute to their new communities; they demonstrated qualities of engaged citizens. Themes identified include: *leadership development* (collaborating, creating an action plan, peer-to-peer education, encouraging community involvement), and *personal and social development* (building confidence, risk-taking, building relationships, resiliency). This research identifies innovative approaches that support immigrant youth newcomers as they navigate the challenges of resettling in a new nation. It would be of interest to schools and school districts as well as local community development agencies that aim to cultivate the growth and development of its constituents.

Keywords: *immigrant youth, extracurricular programming, citizenship, youth leadership*

THE CONCEPT OF POWER IN TEACHER TALK

Kristīne Jozauska

The purpose of education is to initiate the young into the different ways in which, over the centuries, men have organized their experience and understanding of the world. This initiation depends upon the ability of the teacher to explain and inspire, and on the willingness of the young to engage. The discussion on the role of authority in knowledge development and the subject of lack of teacher's authority is strenuous. Teachers do not see themselves as powerful and in some way they are sadly right in this assessment. The role of the teacher has changed, their authority, a fundamental part of the teaching–learning process, is problematic and questioned by society, media, parents and students. Due to the fact that the teacher is in the role of the manager of the class, they require power in another form, namely, the authority to influence students' behavior. Power and authority are central features of teachers' work. Michel Foucault (Fuko, 2001) recognizes that power and knowledge are not seen as independent entities but are inextricably related - knowledge is always an exercise of power and power is always a function of knowledge. Power not only limits what we can do but also opens up new ways of acting and thinking about ourselves. Imagining teachers as the most powerful creatures in class seems plausible, but how are power relations represented in teacher's discourse? Thus, understanding the concept of power revitalizes the teachers' views in their interactions with their students. As Dangel and Durden (2010) claim, teacher talk is a powerful classroom tool to convey and construct meaning, to clarify understanding how the teacher experience and talk in pedagogical situations. The way teachers see themselves as professionals and how they compose their identities in schools is an important factor in the discourse of teacher authority. Wodak (2001) refers that power does not derive from language, but language can be used to challenge power. Language plays an important role in authority constructions (Wenren, 2014). Sources of teacher power are in effective classroom management, in being able to motivate the students, in personal charisma, in the knowledge of subject matter and in the organization of classroom work (Ignatieva, 2010). The main goal of the article is to investigate the concept of power in teacher talk and examine how power is exercised and resisted in classroom by observation. It is a part of an ongoing doctorate research. Teachers' ability to control their use of language is considered to be as important as their ability to select appropriate methodologies (Walsh, 2002).

Keywords: *teacher talk, classroom management, power, teacher authority*

THE USE OF DIGITAL TECHNOLOGIES IN SWEDISH TEACHER EDUCATION: EXPERIENCES BY MIGRANT TEACHERS

Annika Käck

Migrant teachers who wish to complement their studies to become eligible to teach in Swedish schools are a growing number of student teachers in Swedish teacher education. Since Swedish society is highly digitised, it is of interest to investigate how migrant teachers attending four Swedish teacher education programmes estimate and experience the use of digital technologies. The results are discussed in relation to Illeris' redefined transformative learning theory. A convergent mixed methods research design, with a survey ($N = 228$), focus groups ($N = 5$), individual reflective texts s ($N = 30$), and individual interviews ($N = 9$), was applied. The participants had studied in teacher education programmes in 57 counties/regions. The results highlight that some of the learning when digital technologies were used (concerning values and identity, self-directed learning, and communication) reached the core identity and personality layer and required learning as change, transformative learning. Migrant teachers expressed that this transformative learning experience took up to a year to accommodate.

Keywords: *teacher education; migrant teachers' experiences; digital technologies; transformative learning*

INTERACTIONS BETWEEN PARENTING STYLE IN THE FAMILY AND THE USE OF SMARTPHONES AND TABLETS BY 2-3 YEAR OLD CHILDREN

Daiga Kalniņa, Armands Kalniņš

Nowadays a dilemma for upbringing is to what extent smart touchscreen technologies are part of the life of young children, and to what extent they should be (Cocozza, 2014), having regard to the increasing availability and use of touchscreen technologies (George, 2014). The use of touchscreen technology is perceived as a threat to what is accepted as "normal" (Piaget, 1972) development. Parents are concerned that the child may have access to inappropriate content (Byron, 2008).

The **aim** of the research is to identify the interactions between parenting style in the family and the use of smartphones and tablets by 2-3 year old children.

The theoretical basis of the research is formed by:
- theoretical insights into the parenting style in the family (Baumrind; Maccoby, Martin; Medne; Dinka),
- studies on the 2 - 3 year old children 's use of touchscreen devices (Cristia, Seidl; Price, Jewitt, Crescenzi; Ahearne, Dilworth, Rollings, Livingstone, Murray),
- understanding of the benefits and risks of using smartphones and tablets for child development (Duncan et. al.; Chau; Shifrin et. al.; Radesky et. al.; Falbe et. al.; Sisti).

A mixed-methods **design** is used for the research by using such research **methods** as literature analysis, systematic literature review, questioning of parents about their parenting style, children's playing habits and usage of touchscreen devices (about 30 2-3 year old children) and case study (observation) of one child's usage of touchscreen devices and parenting styles. The data were analyzed by IBM SPSS Statistics 22.0.

As a **result** of the research we can conclude that:
- Children are skilful users of a smartphone and tablet when they use the device regularly, but parents do not have time to work with children, i.e. parents teach their child a skill to prevent the child from disturbing the parent.
- If a child has the opportunity to use a smart device on a regular basis, he or she becomes a skilled user at a level that allows a smartphone and tablet to meet their needs without the help of a parent.
- Parents have different views on the impact of the use of smartphones and tablets on child development (positive, negative, unaffected). Parents whose views are dominated by the perception that the use is positive or does not have the effect, allow children to play with touchscreen devices more often and for a longer period of time and do not impose consistent rules.
- The habits and skills of using smart devices for children do not have a significant relationship with the parenting style.

Key words: parenting styles, 2 -3 year old children, smartphone, tablet, media usage habits

INFORMAL LEARNING FOR TEACHERS' PROFESSIONAL DEVELOPMENT AT SCHOOL: OPPORTUNITIES AND CHALLENGES

Oskars Kaulēns

Professional environment at schools has changed during recent decades: it has become more dynamic, more complex and less structured in the way how teachers have to engage with students and develop themselves as professionals. Teachers have more professional responsibilities in the classroom and they are entrusted with the greater responsibilities in matters relating to schools' management. Thus, the role of teachers at school and the requirements for them to reach professional performance standards have raised dramatically. These changes are the main reason why there are new requirements for teachers' professional development according to their actual needs and the new ways how to measure professional development outcomes in everyday teaching practice.

Formal learning activities carried out in a structured, purpose-driven way, such as lectures or seminars, do not meet the real professional development needs of teachers in the 21st century. Teachers' participation in formal learning activities do not transform their professional performance in classrooms and help them to improve learning outcomes of their students, although improvement of students' learning outcomes and diversification of their experience is the main reason for continuous professional development of teachers during their career.

Teachers' formal learning usually takes place outside the real context in which teachers work on a daily basis and thus does not provide enough opportunities to reflect on their own practice and previous experience. Therefore, informal learning at workplace has been offered as an alternative form of teachers' professional development. Informal learning includes individual and collective learning carried out at school or outside the school, where teachers are learning from other professionals and their own experience, participating in professional conversations and sharing experience without a specific learning goal. Moreover, development of informal learning habits of teachers is a fundamental precondition to transform schools from bureaucratic, vertically-managed organizations into learning communities with continuous professional development as its core element.

To understand the latest discussions about informal learning at school for teachers' professional development, the author has done a literature review focusing on several aspects of informal learning: factors that promote and hinder professional development of teachers through informal learning practices at school; the benefits and risks faced by teachers who improve their professional competences by engaging in informal learning activities at school. For the literature review there were selected 22 peer reviewed articles published on *EBSCO* research database from 2010 to 2019.

Key words: formal learning; informal learning; professional development

THE MANIFESTATION OF PERSONALIZED TEACHING AND LEARNING IN SECONDARY SCHOOL

Ausra Kazlauskiene, Ramute Gaucaite

Prevailing economic change, rapid rhythm of life because of high technologies emphasize the importance of the knowledge society. Learning should be dynamic, flexible, open and connected to life; lifelong learning should be encouraged. The study of The National Agency for School Evaluation (Quality of Activity of General Education Schools, 2015) demonstrated that the majority of Lithuanian schools cannot adapt quickly and their curricula are focused on students' knowledge and development of academic abilities. Self-directed learning, meta-learning and application of feedback remain the most problematic lesson components in school education. Meanwhile, studies have shown that higher educational attainments are more noticeable in this process (The Teaching and Learning Toolkit, 2014; Hatie, 2012, Sousa, 2015). According to Marzan (2003), any improvement of learning and teaching must be based on efficient and appropriate practice.

Currently a particular emphasis is placed on personalized teaching and learning for adults rather than children. As to children's learning, it is dominated by episodic rather than systematic type of personalized teaching and learning theory and practice. For a long time children as learners have been undervalued, with a bigger focus on educator and teaching techniques. Presenting the research on the impact of the personalized teaching and learning, the author of the article emphasizes the importance of "liberal" learner-centered learning in childhood, because namely then the foundations of learning management skills, the skills defining a peculiar pace, goals, perspectives, and style of learning, and later determining adult learning culture too, are formed. Applying the method of semi-structured data collection, using reflective writing, the manifestation of changes that took place in the process of personalized teaching and learning at secondary school was analyzed.

Keywords: *personalized teaching, personalized learning, self-directed learning*

MAPPING AS A TOOL FOR BIOMATERIALS STUDY CONTENT HARMONISATION WITH SIGNIFICANT RESEARCH FINDINGS

R. Koka, N. Jansone – Ratinika, T. Koķe, R. Strods, M.Sīlis

Rīga Stradiņš University (RSU) has almost 70-year-experience in implementing health care and 20-year-experience in social science studies. RSU has more than 9000 students, 26% of whom are international students. International recognition is enabled by direct correlation between quality of studies and competitiveness of graduates. The quality of studies is being systematically improved and mapping of the study results is a significant tool in the implementation of the process. A mapping system created by RSU makes it possible to analyse study programmes, study course connections, succession, implementation, novelty and correspondence to the professional standard requirements, to identify the level of alignment between graduate outcomes, study programme, study course results and study activities. Consequently, it is possible to trace synergy between a study programme and development tendencies of the discipline. With rapid developments in the medical industry, discussions about the use of biomaterials are being raised, which is an essential component in strategical specialisation fields in Medicine and Dentistry in RSU. Biomaterials are used in many of today's medical devices, including artificial skin, blood vessels, hearts, pacemakers, dental fillings, wires, plates and pins for bone repair, total artificial joint replacements.

The aim of the research is to study the conformity of biomaterials content acquisition in the RSU Dentistry study programme to significant research findings. Qualitative methodology is used in the research: study course learning outcomes mapping, interviews with field experts, observation of the course, study programme and course leaders, and student focus group.

Upon evaluation of the obtained research results, the following conclusions are proposed:

- The theme 'biomaterials' is very topical in the Dentistry study programme and its significance is ascertained to have a tendency to increase.
- Balanced distribution of biomaterials content in the study programme is needed to ensure more successive and systemic acquisition of study results.
- To foster students' readiness to work with biomaterials in a clinic, the improvement of cooperation at the faculty is necessary, which would facilitate the appropriateness of the specific content to Dentistry sub-sectors.

Summarising the research results, it can be concluded that the study course learning outcomes mapping and interviews with education actors involved in the study programme have helped to discover the essence and range of biomaterials content acquisition, succession, reciprocal links at study course level and appropriateness of content to significant research findings. The obtained results have been conceptualised, communicated to various target groups, and update of the Dentistry study programme is based on them.

Keywords: biomaterials, acquisition of study results, mapping, dentistry

A SYSTEMATIC LITERATURE REVIEW OF TRANSVERSAL SKILLS IN SECONDARY EDUCATION

Gatis Lāma

Although transversal skills (TVS) have been actively implemented and used in education since the end of the 20th century, questions regarding TVC development and assessment are still topical. The Programme for International Student Assessment (PISA) has first included the assessment of these skills internationally in 2000. However, 18 years later, the difficulty of measurement and assessment of transversal skills due to the problem of defining them (UNESCO, 2018) is still being acknowledged.

Evidence to the continuous development of the field is the discussion over comprehension of the term 'transversal skills' and differences in its understanding as well as confusion between similar terms such as '21st century skills', 'generic skills', 'transferable skills', 'cross-curriculum skills' etc.

These problems have attracted attention in the scientific community. For instance, Voogt and Roblin (2012) have identified eight different frameworks describing 21st century skills. Nevertheless, the volume of research using different terms for transversal skills is steadily growing.

To classify and define similarities in various definitions of transversal skills and to work out the key points regarding their assessment in education, a systematic review of recently published scientific papers from December 2018 to March 2019 has been carried out. In total 80 articles were selected from the Web of Science data base; after diligent selection according to concrete criteria, the study uses the descriptive analysis method for an in-depth analysis of 25 articles.

Keywords: transversal skills, secondary education, assessment, systematic literature review

SOCIAL MEDIA FOR MEDIA LITERACY LEARNING: THE CONTRIBUTION OF THE BALTIC INTERNATIONAL SUMMER SCHOOL 2018

Liene Ločmele
Barbara Ruth Burke

As modern media technology users, we encounter disinformation/propaganda and various other attempts at spinning and twisting reality, all related to competing national and international political, economic or personal agendas, and targeted towards influencing our values, attitudes, and behaviors. In the intensive Baltic International Summer School (BISS) program, which we will describe and evaluate in our presentation, we relate how students became more perceptive media users and content producers - able to take an analytical and critical approach towards their media use.

Our own partnership between ViA and UMM started with a US Fulbright Research/ Teaching Fellowship. Working together for BISS 2018 with a theme of "Media Literacy", Latvians and Americans attended together with students from Ukraine, Kazakhstan, Georgia, France, Indonesia, Kyrgyzstan, and Turkey. Along with ViA and UMM faculty-leaders, we had guest-experts from the EU StratCom Task Force, NATO Strategic Center of Communication Excellence, the Baltic Media Center, University of Tartu, University of Vilnius, Riga Stradiņš University, Malmo University, King's Centre for Strategic Communications at King's College/ London, the Baltic Center for Investigative Journalism Re: Baltica, and Thirty Leaves Productions/ California, US.

During our university short course, students read, wrote, conducted group and individual projects, and posted about the media's role in the creation, maintenance and/or subversion of social memory; contemporary uses of propaganda and counter-propaganda; and journalism in the post-information age. Students improved their civic reasoning skills online and become better-equipped to critically analyze media messages, and created their own stories about how to strengthen people`s resistance towards disinformation campaigns and hostile information operations.

From assessment of BISS we know that our students developed intellectual and practical skills, including: inquiry and analysis; critical thinking and problem-solving; creative thinking and artistic expression; information and technology literacy; and beginning levels of international collaboration. Furthermore and perhaps more importantly, with the applied use of technologies in classrooms and beyond, we saw that students gained a greater understanding of the roles of individuals in society through active involvement with diverse communities and challenges, practiced civic knowledge and engagement at the local and global levels and developed Intercultural knowledge and competence.

This BISS program was organised by the Vidzeme University of Applied Sciences in collaboration with the University of Minnesota Morris, the State Development Agency

of the Republic of Latvia, the Council of the Baltic Sea States, the U.S. Embassy in Riga, the Ministry of Foreign Affairs of the Republic of Latvia, and Valmiera Municipality.

Keywords: social media, media literacy, international collaboration, university teaching

INTERDISCIPLINARY COMPUTING FOR STE(A)M: A LOW FLOOR HIGH CEILING CURRICULUM

Francesco Maiorana

There is an international effort to sustain education at 360 degrees involving all citizens, all educational systems: formal, not formal, and informal; all levels of education: from primary schools to higher education; all disciplines: from Math to Latin; all stakeholders: from educational institutions to industries. In Europe, a key role in this process is played by the European Commission in cooperation with leading educational organizations like ACM Europe, ATEE, and OECD. In this scenario, a question naturally arises about what are the competencies and skills that 21st-century citizens have to develop across all their life. Among these competencies and skills, Computational Thinking (CT) plays a key role despite the long debate originated in the 1940s. All disciplines could potentially benefit from CT in a vision advocating for a shift from "from STEM to STEAM (within which the A includes all other disciplines)" bringing into the educational loop all stakeholders from educators to industries and Ministries of Education. According to the various operational definition of CT, it is possible to argue that

- • CT can be interpreted as a transversal set of skills that can be used as a mean to acquire and to develop broad competencies

- • "more tools in the mental toolbox seems like a worthy goal". In the paper, after summarizing the above-mentioned works the importance of CT and its interdisciplinary applications suited for pre-service teachers' preparation, teachers' Professional Development (PD) and high school students, will be discussed by leveraging on international frameworks and curricula. The work will present a detailed discussion of the content of a curriculum, suited for education across Europe, with three strands:

1. Digital literacy

2. CT development in all of its facet. This is accomplished through:

   a. Reading and designing algorithms by means of flow diagram, using Flowgorithm, pseudo code or natural language

   b. Coding, done first using a deluge of block languages, from Scratch to Snap!, from Edgy to NetsBlox, allowing to easily experiment with core concepts in computing, and then translating the programs into a textual language

   c. Puzzle based learning allowing discussing and applying all the major algorithm design techniques: backtracking, divide et impera, greedy, dynamic programming, invariant.

3. Soft skills introduced by means of contributions by leading researchers and educators around the world.

The assessment practices, learning path, pedagogical approaches, and technologies will be presented in order to aid teachers in their pre-service studies, PD, and daily teaching practice.

SHARING EXPERIENCES OF INCLUSIVE ADULT EDUCATION IN EUROPE AND SUB-SAHARAN AFRICA

Joseph G. Mallia

Adults may be excluded from work and further education because of disability, race or ethnicity, language, religion, gender, and poverty. The underpinning concept of inclusive education is the reduction and elimination of these barriers, allowing all, regardless of their differences, to be educated together. Four case studies involving adult mixed-ability students with standard, additional and special needs learning English, agriculture, tourism and hospitality, and agritourism in Guinea, Malta, South Sudan and Sudan were involved. Classrooms also had a mix of nationalities, races, ethnicity, genders and native-language speakers. A mixed-method approach was adopted: qualitative assessment to assess use of (i) familiar or new contexts, (ii) field dependent and field independent strategies, and (iii) explicit or communicative teaching strategies; quantitative studies were used to evaluate (i) deductive and inductive teaching approaches. The underpinning rationale for the study was bottom-up, empowering students equally to share their own views on learning. Tools for data-collection included (1) questionnaires and/or oral elicitation of views from learners, and (2) a variety of classroom-based tasks tackled individually by students, student-pairs, or in mixed-ability groups. For context use, the pilot studies suggest that pedagogical strategies used by the practitioner primarily using 'familiar' socio-cultural contexts while teaching were generally favoured. Yet a discrete use of 'new' contexts was also appreciated as they gave students 'a window on to the world beyond'. Field dependent strategies are strongly favoured over field independent ones equally across students with standard, additional and special needs. Similarly, this choice seems also unaffected by nationality, race, ethnicity, genders and native-language. Explicit and communicative approaches to teaching are both preferred, according to what is being taught. Therefore hybrid strategies are generally preferred: for example, when teaching agritourism, explicit teaching of richly-contextualized definitions with examples are appreciated, while a more communicative and creative approach is favoured for integrating and practicing knowledge, competencies and skills. Analogously, when teaching English language skills, communicative strategies are preferred, whereas explicit ones are for language systems. Deductive approaches when teaching in inclusive classrooms appear to be slightly favoured over inductive ones, however including the latter approach (particularly later in the lesson) helps the practitioner vary the interaction pattern in the class, and helps learners maintain their interest. Results were consistent across the four pilot groups in different countries and application of the results by the practitioner resulted in strong, consistent inclusion and learning in the classrooms.

Keywords: inclusive education, agriculture and tourism, deductive and inductive approaches, field dependent and independent learners

REDESIGN OF WEB-BASED EXAM FOR KNOWLEDGE EVALUATION IN ADVANCED MATHEMATICS FOR PHARMACEUTICAL STUDENTS BASED ON ANALYSIS OF THE RESULTS

Hristo Manev
Mancho Manev

The usage of the information technologies everywhere leads to demands for new manners of education. Modern e-learning environments lead teaching, learning and evaluation of acquired knowledge and skills of students to a new era.

The course of Advanced Mathematics is part of the curriculum of pharmaceutical students at the Medical University – Plovdiv. For students' knowledge evaluation it is used a hybrid-type exam in this university discipline, i.e. a problems-solving part and a remote web-based test, which is created using the free and open-source e-educational platform Moodle.

This paper presents a detailed analysis of the implemented electronic test for knowledge evaluation of the students, using statistical methods and instruments. The questions included in the test and the respective answers given by the students are estimated and analyzed. Thus, an improvement to the database of the test questions is made. The received results are used to enhance the quality of the developed knowledge evaluation and the type of its implementation.

Key words: *information technologies; e-learning; web-based test; Moodle; statistical analysis*

GUIDANCE IN TEACHER EDUCATION: STUDENTS' PERCEPTIONS OF WHAT IS IMPORTANT IN A GUIDANCE SITUATION

Elin Birkeland Markestad
Bjørg Herberg Gloppen

This research 'purpose is to gain knowledge about students' perception of guidance and what is important for the person who receives guidance. The abstract is based on a survey conducted among 43 completely fresh students in primary school teacher education and 31 more experienced teachers who are students in a mentor education. The reason for choosing two such different student groups is interest in seeing if there are differences in perceptions of what guidance means for students both with and without experience in the field as a teacher. What do students think is important for guidance to be good? Is technological solutions enough for knowledge construction? In any guidance there will be a relationship, and the concept of relationship is central to several of our questions.

Theoretical framework
Gregory Bateson points out that relationships between phenomena and relationships between people are fundamental in all forms of communication, and that we always communicate on several levels at the same time (Ulleberg, 2014: 25).

"Communication not only consists of identifiable messages sent back and forth, and of the ever-changing initiatives and responses of dialogue, but also of emotional inner and outer impulses that characterize the relationship, process, change and development of the relationship. Identifying all factors, signs, and signals that are part of this process and affecting the relational is probably impossible" (Eide & Eide, 2017, p. 76).

Methodological design
In order to answer our research questions, we have studied two groups of students. One group is first-year students (43) in teacher education and the other group is students who take mentor education. To obtain data, we have developed a questionnaire with the following variables: Age, Gender, Knowledge, Proximity / Distance, Relationship / Relationship Skills, and Educational Level. We discuss our data in a socio-cultural perspective in light of the theory of relationships, recognition and communication.

Expected conclusions/findings
It may seem that the students believe that the relationship between the supervisor and the person being guided is of major or significant importance. It may also look like first year students have a different emphasis than those with more experience.

Relevance to international education research

This may be interesting to follow with regard to consequences for guidance in teacher education and for mentor education in Norway and in a European context.

PROFESSIONAL MASTERY OF ACADEMICS IN HIGHER EDUCATION:
THE CASE OF LATVIA

Dace Medne, Nora Jansone - Ratinika

The whole HE teaching and learning environment nowadays is formed by similar phenomena: greater, more ambitious and diverse student structure, high quality demands, rapidly changing technological opportunities, higher hopes from government, students and employers that the graduates will be prepared for quickly changing workplaces. Changes and uncertainty in the world is an unceasing topic of discussion and research in any industry. Preparation of students to live in an uncertain world nowadays is an important task of HE institutions. In the context of a suitable study process development, at the moment study programmes and study courses are being reorganised in HE institutions in Latvia, new demands are being defined for academic staff, extensive evaluation of study process and involved participants is being carried out, including one of the common practices in HE institutions, namely, student surveys. The obtained results are being used not only in quality assurance for quality control but also to establish the necessary improvement and continuous development of studies. Yet, more frequently employers state that graduates are not sufficiently prepared for the changing and uncertain world and professional life. Why? As the 'world of work' has also advanced, the changes in HE institutions are not always being configured according to the dynamic demands of an industry. The implementation of changes orders not only shift in organisation of HE institution performance but also changes in perception and comprehension of students and academic staff. With the purpose of study process supervision, the opinion of students is being more frequently identified than the opinion of academic staff. Therefore, a question about how academic staff of HE institution implement their professional activity that forms their professional mastery framework, becomes topical, because the professional mastery of HE academic staff is a prerequisite for student professional mastery process. The way how academic staff of HE institution see themselves as people, as lecturers, is an important aspect of how they implement their professional mastery (Ashwin, 2015). This demand formed the question of the research: what creates the professional mastery framework of a HE lecturer who prepares students for a situation of uncertainty and changes. In order to answer the research question, scientific literature was analysed, a binding framework and reasoned professional academic staff framework established, a questionnaire that aims to identify HE academic staff's criteria for describing professional mastery in everyday professional activity consequently developed and approved.

Keywords: higher education, professional mastery, professional activity

THE INFLUENCE OF TEACHER-INITIATED ACTIVITY ON IDENTIFICATION AND VERBALISATION OF 6-7 YEAR OLD CHILDREN'S METACOGNITIVE REGULATION STRATEGIES

Ona Monkevičienė, Jelena Vildžiūnienė

The theoretical framework. The goal of the presentation is to reveal the influence of teacher-initiated activity on identification and verbalisation of 6-7 year old children's metacognitive regulation. Although development of children's metacognitive regulation strategies in pre-school age contributes to establishment of prerequisites for learning to learn, it has still remained a challenge to early childhood teachers. Metacognition is determined as child's awareness of cognitive processes (metacognitive knowledge) and use of this knowledge in processes of own cognition regulation, that is, planning, monitoring and control while completing assignments, solving problems and making decisions (metacognitive regulation) (Lockl and Schneider, 2006; Brown, 1978; Flavell, 1979; Fletcher, Carruthers, 2012; Marulis et al., 2016). (See: Fig.)

The research on children's metacognitive awareness have revealed that it is already characteristic of 3-5 year old children. It has also been disclosed how this awareness manifests itself and methodologies for its assessment have been developed. (Marulis et al., 2016, Whitebread et al. 2009, Robson, 2016). However, children's metacognitive regulation has been investigated to a smaller extent.

Destan, Hembacher, Ghetti, Roebers (2014) established that children under 5 years old lack abilities to use the information obtained during monitoring for behaviour control rather than monitoring abilities themselves, whereas 5 year olds are able to evaluate and control their decisions. 5-7 year olds (Bryce, Whitebread, 2012), and even 4-5 year olds (Robson, 2009, 2016) are already able to apply monitoring and control. These abilities undergo quantitative as well as qualitative development at the aforesaid developmental period.

However, one of the later studies of Robson (2016), which aimed to establish whether child's activity with or without an adult is more beneficial to the development of metacognitive abilities, revealed unexpected results: children's activities without an adult considerably contribute to metacognitive regulation. This contradicts the results of research conducted by other researchers and substantiates the scientific relevance of our research.

The research design. The strategy of qualitative research was applied in the research. Attempts were made to reveal what ways of metacognitive regulations are employed by 6-7 year old children in their independent and teacher-initiated visual art and constructing activities. The data was collected filming children's activities, speaking to children, looking through the filmed material together with them. The data was processed employing content analysis. The sample: 14 children who participated in

independent activities, and 14 children who engaged in activities initiated by the teacher.

Research results. The research revealed that essential abilities of metacognitive regulation are already characteristic of pre-primary children:

- they possess well-developed abilities of own activity and cognition monitoring (monitoring own actions, identification of success, failure, problem features and reasons).

- children are able to use information received during monitoring for behaviour control and changing their course of actions: they target the goal, make attempts to act following the plan and find ways how to solve problems.

- activities suggested to children by the teacher encourage development of children's metacognitive regulation, if they are presented as a challenge inviting for creative activities, as an opportunity to try out new ways and means of activities and exploration, as new impressions that stimulate action.

DIGITALIZATION AS A PROCESS OF ASSISTANCE IN THE TRANSPARENCY OF UNIVERSITY TEACHING

Ass. Prof. Dr. Ragmi Mustafa
Ph.D Cand. Kujtim Mustafa
Asoc. Prof. Dr. Xhevdet Thaqi
Ass. Prof. Dr. Basri Ahmedi
Ass. Prof. Dr. Ekrem Halimi

This is a project with objectives to study and to apply the surface of the hardware and software part of the panel with LED diode lamps. Furthermore, it is focused on the programming of LED matrix diodes located on 16X96 electronic panels, respectively 16 rows of 96 columns, as well as an elaborated study of the mode of operation, composition, coding and the use of software for panel diodes. The aim is the introduction of diode panels to use at the Faculty of Computer Science of "Kadri Zeka" University in order to provide digital information to students, professors or anyone in the premises of the university of what is happening inside the classrooms of the Faculty of Computer Science. The information is transmitted in real time in accordance with the schedule of lectures and seminars in the respective classrooms of the FCS. The project explains in detail the concept of LED diodes and microcontrollers, their features, operation, power supply and work with 0 [VDC] and 5 [VDC] voltages, respectively 0 and 1 logic bits. At the same time, the project also explains the coding of software building that locks and unlocks LED diodes on a 96X16 LED diode panel, thereby producing the text on the panel (display, screen) in static, mobile, animation or up-down, left and right movements according to the time allocated to the timers of the microcontrollers. The action helps to achieve the goal of the digitalization project of the classrooms of the Faculty of Computer Science.

Keywords: *LED diodes, light-emitting diode panels, digitization, microcontrollers, memory, microprocessors, programming codes, software*

TEACHER'S MOTIVATION FOR MASTER'S DEGREE PROGRAM IN EDUCATIONAL SCIENCES IN LATVIA

Dr.paed. Dita Nimante, Dr. paed. Maija Kokare

Since October 2018 the University of Latvia alongside with three other higher education institutions (University of Liepaja, University of Daugavpils and Rezekne Academy of Technologies) have been involved in the European Social Fund project 8.2.1 which aims to reduce the fragmentation of study programs in the field of education, pedagogy and sports in Latvia by closing a number of existing programs and developing new programs to provide a conceptually new development of teacher-oriented teacher education in Latvia. As part of the project new Master's level program "Educational sciences" has being developed. The study aims to identify teachers' motivations to study in the Master's level program "Educational sciences". The study methodology included examining data both from interviews with the heads or deputies of the eight mainstream schools (different regions and types of schools), recent teachers with a Master's degree in general education, and surveys administered to teachers, school directors and students from Bachelor's level teacher education programs. Preliminary results indicate that the motivation of Latvian teachers to study in a Master's level program is primarily intrinsic motivation, which is consistent with international research. However, it would significantly facilitate studies if opportunities were provided to study for the state budget resources and in the extramural form.

Keywords: *Master of Educational sciences, teacher motivation, future professional development*

BECOMING AN INCLUSIVE PRACTITIONER: TRAINEES' EXPERIENCES OF INCLUSIVE PRACTICES DURING TEACHING PRACTICE

William Nketsia

Teaching practice has been found to significantly improve trainees' knowledge and understanding of inclusive teaching practices and special educational needs (SEN). This study sought to determine trainees' experiences of inclusive practices during teaching practice. A survey of 171 final year trainees, 57 college supervisors and 77 school-based mentors from three of the 38 public colleges of education in Ghana revealed that the teaching practice does not promote enough inclusive practical training and the mentors do not model enough inclusive practices for trainees. The study found infinitesimal co-teaching practices among trainees and the entire teaching practice had a significant impact on only minority of trainees' beliefs and attitudes towards pupils with SEN. The implications of the findings for the improvement of teaching practice to effectively train teachers in areas of SEN and inclusive education in the colleges of education were discussed.

Keywords: *Ghana, inclusive education, inclusive practices, teaching practice, trainees*

ATTITUDE AND VOCABULARY KNOWLEDGE AS PREDICTORS OF SENIOR SECONDARY SCHOOL STUDENTS' ACHIEVEMENT IN FRENCH READING COMPREHENSION IN SELECTED SECONDARY SCHOOLS IN IBADAN METROPOLIS

Araromi Maxwell Olakunle, PhD

This paper examined the relationship between reading attitudes and vocabulary knowledge of some senior secondary school students in Ibadan and their achievement in French reading comprehension. This study was a correlational research. The sample comprises 95 Senior Secondary School Students. Three instruments were used for the study. These are the French Reading Comprehension Achievement Test (FRCAT), Questionnaire on Students Attitude to French Reading Comprehension (QSAFRC) and Test of Students Knowledge of Vocabularies (TSKV). FRCAT, QSAFRC and TSKV had reliability indices of 0.82, 0.81 and 0.82 respectively. The data collected for the study were analyzed using Pearson Product Moment Correlation (PPMC) and Multiple Regression. Four research questions were raised and answered. The findings revealed that there was a significant positive relationship between the dependent variable (achievement in reading comprehension) and independent variables, namely, the attitude to reading comprehension ($r = .471$, N= 95, $p < .05$) and vocabulary knowledge ($r = .356$, N= 95, $p < .05$). The findings revealed that there was a joint contribution of the attitude to reading comprehension and vocabulary knowledge to students' achievement in reading comprehension. This means that 20.7% (Adj. $R^2=0.207$) of the variance in the students' achievement in reading comprehension is accounted for by the independent variables when taken together. The findings revealed that there is a significant relative contribution of the attitude to reading comprehension and vocabulary knowledge to students' achievement in reading comprehension, expressed as beta weights, with the attitude to reading comprehension ($\beta =0.538$, t= 3.390, $p < 0.05$) most potent contributor to the prediction, followed by vocabulary knowledge ($\beta = 0.183$, t= 2.522, $p < 0.05$). It was however recommended that teachers of French language as a foreign language in Nigeria should pay adequate attention to the variables of attitude to reading and vocabulary knowledge as these could hamper the adequate learning outcome in French reading comprehension of the learners.

Keywords: *attitude, vocabulary knowledge, the French language and reading comprehension*

EXTENDING UNIVERSAL ACCESS TO EDUCATION FROM PRIMARY TO SECONDARY SCHOOL TO STUDENTS WITH DISABILITY IN GHANA

[1]Maxwell Peprah Opoku, [1]Christopher S. Rayner, [1]Scot J. Pedersen, [1]Monica Cuskelly

The need to improve well-being and alleviate poverty among persons with disabilities have dominated the discourse on social justice and equitable access to education. Contemporarily, the emphasis has been laid on making regular classrooms accessible to all children in schools located in their communities. This has been argued as an important step towards achieving inclusive society and a way of supporting children with disability to assess quality education and explore opportunities in societies. Ghana government has acknowledged the barriers encountered by children with disabilities and incorporated inclusive education in its education system. The enactment of inclusive education in Ghana has coincided with United Nations' global call to alleviate extreme poverty, the action implemented through Sustainable Development Goals [SDG]. Specifically, Goal 4 of SDG exhorts countries to extend universal access to education from primary to secondary school education to all children. Recently, the government of Ghana introduced the free senior secondary school education policy to remove cost barriers and support all children to have access. With effort towards implementing inclusive education limited at the primary school level, there is an urgency to investigate the preparedness of secondary schools to admit students with disability. In this qualitative study, we adapted Theory of Planned Behaviour as a framework to explore the perspectives of 37 participants, made up of teachers, school leaders and special educators on teaching students with disability in secondary schools in Ghana. Despite the implementation of the free education policy, we found that secondary schools were unprepared to accommodate students with disability due to a lack of teaching and learning materials, inaccessible physical environments, and a rigid curriculum and general academic focus. We conclude that children with disabilities may grow-up and remain in the circle of poverty if urgent measures are not put in place to create accessible education at all levels. Strategic solutions for Ghana to address these barriers are discussed within this paper.

Keywords: *inclusive education, students with disabilities, Ghana, secondary education, stakeholders*

THE STUDENTS` VISUAL LITERACY FOR KNOWLEDGE CONSTRUCTION ABOUT THE HISTORY OF LATVIA AND THE WORLD

Mg. hist., Mg. paed. Liene Ozoliņa

The publication aims to present Master thesis research on the integration of visual literacy in the learning process and its influence on pupils` knowledge construction. Swiftly developing technologies make possible mass production and distribution of visual information sources. In consequence, people are overwhelmed with visual information, and it leads to changing habits of perceiving and analyzing it. Thus, visual literacy is required not only to develop critical thinking and constructing knowledge, for example about historical processes. It is also needed to avoid demagogy and propaganda, which are spread also using visual media.

Visual literacy in this publication is mainly studied in the context of the acquisition of History of Latvia and the World but also related subjects, and the topic is topical in the context of the ongoing educational reform in Latvia. Conclusions are based on qualitative data gathered from educators of primary and secondary education who developed and approbated assignments for pupils which include visual information sources.

Keywords: *visual literacy, knowledge construction, History of Latvia, History of the World, educational reform, primary education, secondary education*

NATIONAL LEVEL LARGE SCALE ASSESSMENT DATA FOR INSTRUCTIONAL PLANNING IN CLASSROOM

Pavels Pestovs
Dace Namsone

Large scale assessments are used for many purposes, but of all purposes, teachers are rarely recognising the use of large scale assessment for instructional planning. The feedback from large scale assessment very often is too abstract and of no use to students, especially if the large-scale assessment is administrated in the end of the term. Teachers primarily use their intuition to plan instructional decisions, however in time of vast different political initiatives, it is very important to introduce data driven decision making in school.

The authors are working in the theoretical framework that assessment data from different sources in aligned and interconnected fashion with instruction is important in making high quality educational decisions and data should be interpreted in context to be transformed to meaningful information. The study design is based on in-depth analysis of 6th grade national level large-scale assessment data in Science, Native Language and Mathematics. In focus groups the experts deconstructed the aggregated data from the large-scale assessment in several iterations and map items according to the theoretical constructs model according to the new curriculum reform. A sample of schools has been chosen in piloting the project to use data to plan instructional decisions, detailed information was provided and interviews with principals and teachers were organised. In the final research stage, document analysis, particularly school plan analysis, was performed to determine if data use was visible in these documents. The authors have found that deconstructed large scale assessment data organized in interconnected way between different subjects rather in than in isolated way is of high use. The authors have piloted the project in which deconstructed data were used to make decision about school development. However, the authors point out that even deconstructed assessment items are of small use if there is a large gap in teacher competence of using data (data literacy).

Keywords: *large-scale assessment, data-driven decision, instruction planning*

LATVIAN STUDENTS' INTEREST IN DIFFERENT SCIENCE SUBJECT TOPICS

Juris Porozovs

Students' interest in science subjects is insufficient in different countries. One of the main reasons of the decreased students' interest in science subjects is that often science subjects in schools are taught in a traditional way, separated from real life, and it is difficult for students to relate their knowledge to their personal interests. The aim of the study was to clarify Latvian students' interest in different science subjects and science topics. The electronic survey of Latvian students from different specialities was carried out. 12th-grade secondary school students from 2 Riga schools, University of Latvia 1st course pedagogical specialities students, University of Latvia 1st course doctor's assistant program students and Latvia Music academy 1st-course students were surveyed. Altogether 235 students were questioned. The results of the research showed that the interest of Latvia students from different specialities in physics and chemistry is rather low: the majority of students have average interest in topics of these subjects. The lowest interest in physics and chemistry from surveyed student groups have Latvia Music Academy students. The most interesting topic in physics for all student groups is the structure of the Universe. From chemistry topics, secondary school students are more interested in types of chemical reactions and electrolytic dissociation theory. The majority of the University of Latvia students in pedagogical specialities are not interested in chemistry. Most of Latvian students are interested in biology. Among the surveyed student groups, most interested in biology are University of Latvia students in doctor's assistant program . The most interesting topics in biology for all student groups are genetics and gene engineering, the human organism, human health, origin and evolution of life and ecology. The majority of students have average interest in such topics as the structure and diversity of plants. The results of the current research correlate with the results of other studies which suggest that students usually have a greater interest in biology but the interest in chemistry and physics is lower (Lamanauskas et al, 2004). An important task of teachers is to find a way how to raise students' interest in science subjects. Teachers should use a student-centred approach and interactive methods for teaching science subjects in order to raise the personal interest of students in acquiring science subjects.

Keywords: students, science subjects, interest, physics, chemistry, biology

ENHANCING STUDENTS METACOGNITION IN THE CLASSROOM

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Although metacognition and its effects on learning have been studied for more than 40 years, for teachers in Latvia it is a new frontier. Until now there hasn't been a requirement for teachers to teach students metacognitive skills, but with the new competency-based curriculum from 1st September 2020, it will become mandatory. Metacognition is often defined simply as "thinking about thinking" or, in learning environment, "thinking about learning". It is the consciousness of our thinking process and the ability to know what we know and what we don't know. An important component of metacognition is to produce a plan of action and then to monitor the fulfilment of the plan, reflect and evaluate not only the result of our plan, but also the productivity of our own thinking. There are various strategies to enhance metacognition for teachers to choose from. The aim of the literature review in this article is to summarize what activities (student and teacher actions) enhance students' metacognitive skills in three categories - planning, monitoring and evaluation of thinking. In order to plan future research for developing a support system that would help teachers in Latvia implement metacognition into their practice, a pilot study was carried out. The aim of the pilot study was to collect qualitative data about elements of metacognition in teachers' current practice and to compare them to suggestions given in literature. To reach the aim, 20 consecutive lessons taught by different teachers but to the same students (10th grade) in a large Latvian school in Riga were observed.

Keywords: *metacognition, classroom practice, planning, monitoring, evaluating*

THE ASPECTS OF IMPROVING TEACHER'S PROFESSIONAL ACTIVITY ORIENTED TOWARDS THE LEARNER'S WELLBEING AND SUCCESS

Asta Rauduvaitė, Greta Šadeikytė

Transforming educational research has been undergoing social, technological and cultural changes, which call for a new attitude towards modelling of the educational process that focuses on the learner's wellbeing and personal success. The pedagogical interaction between the learner and the teacher and a two-way dialogue are perceived as a condition for engaging the learner into successful educational activity, encouraging him or her to discover, learn and create. Discussing teaching and learning today, the emphasis is laid on its efficiency, which enables the learner to pursue good learning outcomes. Therefore, on the basis of the conducted research, attempts are made to highlight and create strategies that can contribute to revealing socio-educational factors resulting in successful learning and wellbeing of a learner. The research problem is formulated as the question: what factors can influence the improvement of music teacher's pedagogical activity while focusing on the learner's wellbeing and his/her success in the process of education?

The goal of the research: to reveal possibilities for improving music teachers' pedagogical activity that focuses on the learner's wellbeing and success in a school of general education.

The methods of the research. *Data collection:* integrative analysis of scholarly literature and educational results; written questionnaire survey of music teachers; reflections. *Data analysis:* statistical analysis of research data using statistical data processing software; qualitative content analysis.

The research data allow concluding that the activity of the teacher today is based on the following: the content of the lesson is planned considering the abilities, developmental peculiarities of a specific class and applying appropriate educational methods; information for the lesson is collected from various information sources; critical thinking, communication skills and creativity are promoted in the lesson taking into account the learners' interests and needs; evaluation of school learners' achievements encourage them to learn and reflect, assessment criteria are understood and accessible to everyone according to their abilities, etc.

Having considered the opinion of the teachers in the survey, the following aspects of the teachers' activity that focus on the success and wellbeing of learners can be highlighted: efficiency of school students' learning is improved by integration of new technologies, video and audio equipment in a lesson; continuous search for ways of curriculum improvement; efficient application of teaching aids at a lesson; differentiation of assignments and possibility for its choice; attention to interdisciplinary integration; inclusive education; variety of material resources; needs for teachers' professional development, etc.

Keywords: music education, music teacher, learner

PROFESSIONAL LEARNING COMMUNITY AS AN ORGANIZATIONAL SYSTEM FOR SCHOOL STAFF DEVELOPMENT, SCHOOL CHANGE AND IMPROVEMENT

Normunds Rečs
Andrejs Geske

In the context of general education content reform initiated in Latvia, which also provides change of the approach to learning, involvement in mutual professional learning activities at school has raised the issue of teachers` professional growth. In scholarly literature, the concept of PLC is considered to be an effective organizational system for school staff development, school change and improvement on the basis of two considerations. First of all, it is presumed that teachers` professional knowledge is part of their everyday experience and that this knowledge is best understood in a critical exchange of ideas with other teachers who have the same experience. Secondly, it is assumed that teachers who are actively involved in PLCs will be able to increase their professional knowledge and competence, thus contributing to pupils` learning and their learning outcomes. The main goal of the research is to find out whether and to what extent teachers in the Latvian general education institutions take part in PLCs. The article discusses theories of the concept of PLC and analyzes the results of 489 teacher surveys.

COMPETENCE APPROACH IN HIGHER EDUCATION

Victoriia Riashchenko, Jevgenija Dehtjare

The article discusses an essence of the competence approach for the higher education. It is concluded that a basis of education should be established on basic knowledge, appropriate skills, ways of learning; the education system should be oriented towards the basic branches of science and have an academic character.

Introduction

Statement of the problem - The world experience in the competence-based approach is ambiguous but it is regarded mostly positively, as it gives students an approach to understanding based on practical application of knowledge. The experience of other countries already allows evaluating the pros and cons of the competence-based approach.

For example, in the US it began to be used in the mid-twentieth century. In the world, this approach is more practiced in vocational education. In Switzerland, Germany and Austria, teachers are growing discontented with competence education. In Germany, the popular opinion is one "can`t be able, not knowing [1]."

During the study the following methods were used:

- theoretical methods: analysis, synthesis, generalization, comparisons, logical method and classification;

- empirical methods: observation, description, measurements, comparisons .

The purpose of the research is to prepare the empirical foundations of the competence approach, to reveal the essence of its theoretical core - the term "competence", to determine the limits of its applicability and expediency of use.

The analysis of many educational systems suggests that one of the ways to update the content of education and teaching technologies, aligning them with the modern needs, integrating into the world of educational space, is to orientate the curricula to a competent approach and to create effective mechanisms for its implementation.

At the same time it is impossible to interpret the concept of competence unambiguously. Franz Weinert [2], one of the most recognized international experts on this issue, argues that there is no single application of the concept of competence nor the widely accepted definition of this term. According to the definition of the Organization for Economic Co-operation and Development (OECD), competence is "the ability to successfully respond to needs or successfully complete tasks [3]."

The basis of the competent approach to the definition of the essence of higher education is the desire to implement two main tasks:

1) Education should equip students with the quality necessary for the implementation of their professional activities, that is, they must form the qualities that are necessary to the employer;

2) Criteria and parameters for assessing the results of modern education should be unified and expressed in terms and outcomes that can be interpreted and taken into account in any educational institution of any country.

Theoretical framework

Thus, competence-oriented education is aimed at responding to the personal, social, professional and cultural needs of modern society. In this direction, there is a shift from the traditional approach in which teaching is centred, to education oriented towards learning, where the students are the centre of the educational process.

Conclusion

Summarizing, we can state the following: the competence approach in higher education is such kind of an organization of the educational process which focuses on what students do or can do as a result of learning, rather than what they should learn. Training on the basis of the competent approach forms the quality of students for the implementation of professional activities that are necessary for the labour market, and the criteria and parameters for assessing the results of education are unified and expressed in terms and outcomes that can be interpreted and taken into account in any educational institution of any country.

Keywords: *competence approach, qualification, quality*

LEARNING FROM INTERNATIONAL FIELD EXPERIENCES (LIFE): CANADIAN PRE-SERVICE TEACHERS' GROWTH AND DEVELOPMENT IN EUROPEAN CONTEXTS

Daniel B. Robinson, Andrew Foran, Ingrid Robinson

All Canadian teacher education programs require pre-service teachers to successfully complete at least one field experience as a condition for graduation and initial teacher certification. For a number of reasons—including the need to establish innovative international opportunities that enable pre-service teachers to develop global perspectives and experiences—some of these programs have recently offered international field experiences as a possibility for their pre-service teachers. Recently, some have researched the effect of these international field experiences upon pre-service teachers' own personal and professional growth and development. This paper highlights results from a multi-case study, in which some of one university's pre-service teachers have completed their fourth (of four) field experience in one of three European contexts (Norway, Scotland, Sweden). In each of the three cases, data were collected from participants (Norway, n = 7; Scotland, n = 8; Sweden, n = 9) primarily through two data sources: (1) pre- and post-international field experience journal responses and (2) post-international field experience focus group interviews. Results from all three cases revealed that participants experienced *personal* growth related to a number of themes, including (1) leaving one's comfort zone and (2) building confidence. Results also revealed that participants experienced *professional* growth related to a number of additional themes, including (1) appreciating and embracing the need for flexibility and (2) openness to and readiness for new ideas or perspectives. Lastly, results also revealed that there were some unintended negative results from the international field experience related to pre-service teachers' experienced conflict and angst while in the international settings. While local schooling contexts will continue to be the norm for most pre-service teachers, this research informs us and others about the possibilities of international field experiences. More specifically, this research details the personal and professional growth and development that simply cannot be achieved 'at home'. Indeed, these European contexts offer learning opportunities that are unique and worthwhile. The results and discussion should be of greatest interest to those who share an interest in pre-service teacher education and education within (more) global(ized) contexts.

Keywords: international, field experience, teacher education, global education

DEVELOPMENT OF CRITICAL THINKING IN LATVIAN EDUCATION:
SITUATION ANALYSIS AND OPTIMISATION STRATEGY

Zanda Rubene
Artis Svece

The aim of this study is to analyze the experience of developing critical thinking in the schools and higher education institutions of Latvia within the last 20 years. It should be emphasized that 2018 marks the 20th anniversary since the project to develop critical thinking approach in the education of Latvia was started. That is a significant reason to look back and also to critically evaluate the progress made in this area.

Even though critical thinking has been important for the Latvian educational practice since the mid-90s of the 20th century, it is still a subject of heated debate. As a Post-Soviet state, Latvia joined the critical thinking promotion movement in 1998, with a view to advance a more rapid formation of a democratic consciousness in the society. Education was perceived as a means to socially transform (i.e. democratize) the society. But the study "On the use of the critical thinking development approach in educational system: its impact and effectiveness in Latvia" that was done ten years later, in 2008, demonstrated that no significant changes had taken place in the Latvian educational system in those ten year. The social studies of recent years even suggest that Latvian society is becoming more radicalized. The same processes could be at work in another area of education development: one can observe difficulties with understanding and promoting media literacy in the context of digitalization of Latvian society.

This study will analyze the reasons behind the current state of affairs and suggest some way forward. Notwithstanding the polarization of opinions, critical thinking in Latvia is still considered to be a means to reach participatory democracy and create a democratic model of education.

Keywords: *critical thinking, critical thinking approach in education, democratic model of education*

TOWARDS A CONTEXT-SPECIFIC SCHOOL LEADERSHIP COMPETENCE FRAMEWORK: A CASE STUDY OF LATVIA

Ilze Saleniece, Dace Namsone, Līga Čakāne, Anete Butkēviča

The aim of the study described in this research paper is to examine effective school leadership practices by applying topical research knowledge in the area to the current school leadership situation in Latvia. The analysis of Latvian context is relevant considering that the country is undergoing a nation-wide curriculum reform in general education with an aim to develop students' 21st century skills. The study of the performance of school leadership is critical as school leadership practices have a significant impact on teaching and learning, and it is one of the most influential school-level factors in student achievement, as recent research has shown.

The study design consists of three main stages. Firstly, authors conveyed a literature analysis and looked at the most acknowledged school leadership competence frameworks, identifying key domains and criteria important for an effective school leader. Secondly, the analysis of the Latvian context was accomplished. The relevant data were collected both through document analysis, with a particular focus on policy and normative documents setting standards for school leadership, as well as 21 qualitative interviews with heads and their deputies of various types of schools. Additionally, the analysis of artefacts – school leaders' worksheets collected through an exercise of competence mapping - was carried out. Thirdly, the existing research literature and the collected data on school leadership in Latvia were compared and analysed.

As a result, the study arrived at conclusions about the relevant context-specific aspects in regard to the effective school leadership, and identified main differences in key competence domains and criteria between the research literature and practice of school leaders in Latvia, thus setting the ground for a conceptual framework of school leadership competence assessment that is applicable to the Latvian context. Additionally, based on the comparative analysis, the study summarized further steps and recommendations for school leadership competence development.

Keywords: educational/school leadership, school leadership practices, competence domains and criteria, competence assessment and development

SUPPORTING SELF-REGULATED TECHNOLOGY LEARNING IN THE WORKPLACE: INVESTIGATING TEACHER EDUCATORS' EVOLVING PREFERENCES

Maurice Schols

Educational innovation and the future of teacher education rely mainly on the quality of teacher educators. Teacher educators and teacher education institutions are responsible for providing effective professional development experiences for preservice and practicing teachers. Although the importance of offering meaningful opportunities to learn about technology is gaining the attention of national governments and management boards at teacher education institutions, teacher educators still perceive technology instruction as disconnected from their teaching practices. Their professional growth therefore requires exposure to professionalization opportunities that lead to effective, personally significant learning. This study examined the extent to which teacher educators' self-regulated learning can be supported through the use of an assessment instrument measuring technology learning preferences. To acquire in-depth knowledge and triangulate the information, data were obtained via the use of three qualitative tools: reflective reports from individual research participants, semistructured group interviews and field observations. The study findings indicated that teacher educators learning about technology prefer a strong focus on acquiring practical ICT knowledge and skills that are clearly connected to their teaching practice. An additional key finding was that teacher educators' self-regulated learning was enhanced through the use of an instrument to map evolving technology learning preferences. The findings in this study may assist teacher educators in directing their technology learning in the workplace.

Keywords: *teacher educators, ICT, professionalisation, self-regulated learning, learning preferences*

COMPETENCY-BASED EDUCATION: LESSONS OF IMPLEMENTATION

Faye Snodgress

This presentation will provide an overview of Competency-Based Education and some of the success and challenges in three U.S. high schools where it was implemented.

When schools begin exploring competency-based education or CBE, parents and teachers and community members will ask, what evidence exists that CBE provides good educational outcomes for students? The answer to this important question is that researchers are still figuring it out. Competency-based education is probably better understood as a hypothesis, as a potential path forward rather than a proven practice.

Current research shows that there are many educators and administrators experimenting with competency-based education who have already had positive outcomes in terms of teaching and learning. They have observed their students become more engaged and take more ownership of their learning. The approach to delivering content by teachers has changed as they identify and share clearly stated competencies that their students will be expected to gain. Their schools have become more thoughtful as organizations in terms of assessment and the ways that students can demonstrate understanding.

The three high schools whose experience will be discussed are located in Vermont, Maine and Tennessee. They each approached the move to competency-based education differently. One school made significant changes to their daily schedule and grading system. Another school uses a strong focus on project-based learning, in addition to being competency-based, with some classes being team taught to facilitate interdisciplinary learning. The largest high school has heterogeneous class groupings, where students of all abilities take classes together. They decided to maintain their current grading system but rethought other aspects of assessments.

There are lessons to be learned from each school's journey. To make the shift to competency-based education, successful school districts used a systems approach to teaching and learning, gathering input from all stakeholders, listening carefully, authentically incorporating those ideas into the plan and developing a strong shared vision and culture. The schools all recognized the need for time and effort to implement a new system, with professional development being a key requirement. As more schools move to competency-based education, there are implications for teacher preparation programs. Currently, only one U.S. university-based teacher preparation program trains their preservice teachers in competency-based education.

LEARNER-CENTERED EDUCATION: A PARADIGM SHIFT

Faye Snodgress

Many education systems were designed in a different era and structured for a different society, one based on a standardized, "factory" model. Teachers are given an age-group cohort of children at the beginning of the year, a standardized curriculum and a matching set of assessments. Given today's rapidly changing and increasingly interconnected world, education systems need to prepare all children with the skills, knowledge and global mindset of equity necessary to face an uncertain future. Employers are calling for employees who are not only able to demonstrate high-level writing and communication skills but who have systems thinking, critical problem-solving skills and the creativity to contribute as the demands of their jobs fluctuate.

When consideration is given to 'transforming' education, the discussion is often tied to the use of technology in the classroom. To achieve the education outcomes required for the 21st century, a paradigm change is required. There is research from 20 year ago about the benefits of learner-center education but little progress has been made in effectively implementing it. Moving to a learner-centered paradigm constitutes a shift of perspective that places the learner at the center, structure the system to build appropriate supports around him or her and acknowledges the need to adapt and alter to meet the needs of all children. It recognizes that learning is a lifelong pursuit and one's natural eagerness to discover and learn should be fostered throughout life. Children's interests, passions, dreams, skills and needs shape their learning experiences and drive the commitments and actional of the adults and communities that support them.

This presentation will focus on the learner-centered paradigm and the learning experiences characterized by the five interrelated elements: competency-based, personalized, relevant and contextualized, learner agency, socially embedded and open-walled. These elements are part of new designs that can work together and reinforce one another to create excellent learning experiences. All education components are designed for the education experience to be adaptable to the needs and potential of each learner and supports the highest possible outcomes for all learners.

Examples of the learner-centered paradigm being used at various levels of education—from Kindergarten to high school to first-year university students will be shared during the presentation.

IN-SERVICE TEACHER EDUCATION: CHALLENGES IN THE MODEL OF DISSEMINATION

Gomathy Soundararaj

In-service training programs in most of the developing countries follow a cascade model of dissemination. The model entails training the trainer to ensure that knowledge is transferred from experts and specialists to the teachers themselves (Dichaba & Mokhele, 2012). This model is widespread and used for its ability to reach a large number of teachers within a short period of time (Bett, 2016) and also for its cost-effectiveness (Ono and Ferreira 2010). However, the model has been criticized for its "trickle-down effect" (Hayes, 2000), which refers to the watering down of the true essence of content when the information is passed on from one entity to another. It also leads to a creation of a hierarchical environment where teachers are perceived as "empty vessels" (Dadd, 2014) who need external expertise and treated as implementers of projects rather than agents of change.

With its benefits and challenges, the cascade model is followed for dissemination whenever there is a pedagogical reform or change in government policy. The state of Tamil Nadu, India, launched a new pedagogy named Simplified Activity Based Learning (SABL) in 2018 with major changes in teaching methods with the focus on digital technology integration. An ethnographic study was conducted among rural primary government school teachers of Tamil Nadu to understand the perspectives of the teachers on the impact of the in-service teacher education program in equipping them for the pedagogical reforms in the state.

The qualitative content analysis of the data reveals that the training program conveys content and information but fails to address the needs of the teachers and enhance teacher agency. The teachers expressed disconnect with their facilitators and pointed out the absence of demonstration classes, discussion and collaboration. The time allocated and the consistency of the training was insufficient for the teachers to gain a complete understanding of the pedagogical changes. On the other hand, the teacher educators emphasized their commitment in communicating the pedagogy efficiently to the teachers and the difficulties they face in the process.

With such findings, the study proposes recommendations to address and integrate teacher agency, teacher interaction and collaboration with the existing cascade model to make it more impactful. They include creating an egalitarian space with changing lecture-based sessions to design thinking and appreciative inquiry processes that connects facilitators and teachers, enables a better understanding of the pedagogy and empowers teachers to be the agents of change.

Keywords: in-service teacher education; cascade model; ethnography; India

THE IMPACT OF NATIVE LANGUAGE AND CULTURE ON FOREIGN LANGUAGE LEARNING: THE CASE OF CHINESE STUDENTS LEARNING THE LATVIAN LANGUAGE

Anna Stavicka

Anna Sedova

Indra Odiņa

Multilingual and multicultural learning space has become the apparent reality students need to function in. Foreign language (FL) teaching methodology is one of the key areas FL educators focus attention on in view of the necessity to elaborate practices taking into account the cultural peculiarities and background of diverse target audiences. While the elaboration of FL teaching methodology for common languages is obviously the core activity of numerous scholars worldwide, less common languages within foreign language teaching and learning need conscious and thought-through attention to be paid to.

The introduction of the Latvian language as a foreign language to Chinese students dates back to 2011 when the first comprehensive programme on Latvian studies as an elective course was launched in Beijing Foreign Studies University (BFSU) in the People's Republic of China. Since then another university – Beijing International Studies University (BISU) – introduced the programme with the Latvian major in 2015. The BISU bachelor level programme comprises the Latvian Language course corresponding to A1-B2 CEFR levels, the Latvian Culture course and the History of Latvia course. The article explores the case of Chinese students of BISU learning the Latvian language as a foreign language focusing specifically on the impact of their native language and cultural background on foreign language learning.

The article reports the selected results of the action research focusing on the peculiarities of the acquisition of phonetical, grammatical and semantic aspects of the Latvian language and using the four skills: reading, speaking, listening and writing by students of diverse native languages and cultural backgrounds.

Given that language is one of the key markers of identity, the results of the study revealed that such factors as similarities and differences in the structure of languages impact the successful FL acquisition and should be taken into account in the process of the development of FL courses for students of diverse backgrounds. Every level of linguistic structure is to be addressed in a particular way providing the comprehensive framework for learning the Latvian language from the Chinese speakers' perspective.

TEAM-BASED LEARNING IN BUSINESS ENGLISH AND MANAGEMENT IN LATVIA AND EU

Jelena Stepanova, PhD Candidate, Mg. soc. sc

Business English and Management are the core subjects in business education. The application of a pertinent teaching-learning approach, such as team-based learning, allows students to engage into the educational process and demonstrate higher achievements in disciplines acquisition. The article reflects the results of the 4-year empirical research on team-based learning implementation in Business English and Management disciplines in several higher institutions in Latvia, where participated 300 students, who mastered their skills and competences reaching an academic success through this approach. As well the article investigates the results of empirical research on team-based learning application in other European Union universities by Business English teachers from Germany, Austria, Slovenia, Italy, Spain, Greece and France. Team-based learning in teaching Business English and Management proved to be a successful tool as it assisted to academic success in the disciplines, communication and understanding of the business environment peculiarities through teamwork and critical thinking, and the majority of students gave a positive feedback. The research demonstrated that team-based learning gives more freedom and authorizes students to be more responsible for their own studies and knowledge as the process involves both individual work and teamwork and the contribution to the team is significantly more important there. Self-determination in studies leads to an academic success towards life-long competences and proves the team-based learning approach to be a useful and transformative tool for teaching Business English and Management. However, in spite of this, the results of the research proved the team-bases learning approach is not familiar in EU universities, although other approaches are broadly applied.

Keywords: team-based learning, Business English, Management

THE GAP BETWEEN HIGHER EDUCATION DEVELOPMENT TENDENCIES AND STUDY PROCESS IN THE CONTEXT OF DIGITALISATION

R. Strods, L. Daniela

The paper covers the progress in linking two research parts in a cooperation of France and Latvia in *Hubert Curien* partnership programme within the project OSMOZE *"The gap between political development documents and practice of digitalisation of higher education"*. In the first part of the research, the authors answered one of the research questions: *what trends in the digitalisation of higher education (HE) can be found in Latvia as a united European higher education area*, and analysed normative documents by using qualitative content analysis. As a result, a scheme of category generalisation that explains the tendencies of HE digitalisation was obtained. In the second part of the research, a set of criteria that reveals the aspects of HE digitalisation was developed and a survey of academic staff, focusing on the study process, was conducted. The aim of the paper is to define and explain the emerging gaps between HE development tendencies in Latvia and Europe and in the feedback of academic staff about teaching and learning in the context of digitalisation. The obtained research results confirm the assumption of researchers from other countries that at the level of political aims and HE practice a number of gaps exist in the context of digitalisation. For example, meta-analysis of research results demonstrate that students who use various technologies in the study process have lower results than those students who do not use them. The research authors propose a hypothesis that academic staff are meaningful leaders of HE digitalisation and students must gain of these changes because HE digitalisation is being implemented to improve the quality of the study process, make it more varied, actively involve students in learning and acquiring the topical competencies for the current job market. The approach how the teaching and learning are organised and implemented has to change in the process of digitalisation, and the authors consider blended learning to be the most appropriate for a technology-enhanced-study process. In its turn, the implementation of this approach would reduce the above-mentioned gap. To ensure the integration of digital technologies in teaching and learning there should be various support mechanisms for academic staff and students.

Keywords: higher education, digitalisation, technology enhanced study process

INVOLVED SUPPORT PERSONNEL FOR CHILDREN WITH SPECIAL NEEDS IN LATVIAN SCHOOLS

**Ilze Šūmane, Baiba Martinsone,
Dita Nīmante, Malgožata Raščevska,
Solvita Umbraško**

By analyzing the challenges of special education in the 21st century, it has been concluded that implementation of inclusive approach in general education schools is one such challenge. An important element of the developing inclusive education system is the support team at the school.

The aim of this article is to describe the currently available personnel, and the personnel necessary for education and support of children with special needs in the educational process. We will analyze the education of the involved personnel in regards to the requirements of special education, the existence of support teams and the involved and necessary specialists, comparing the experiences of general education and special education schools.

For this descriptive design empirical research, we have used data acquired by survey and methods of descriptive statistics to process the answers.

Research results indicate the need for widening the access to professional development programmes for pedagogues in the field of special (inclusive) education to strengthen the professional competency of pedagogues. The survey shows that currently in Latvian schools the subject teachers are the ones that largely contribute to the support activities (e.g. preparation of suitable learning materials) and greater support has been requested regarding accessibility of learning materials, as well as a wider range of available methodical materials.

Keywords*: inclusive education, school support team, supporting personnel, child with special needs*

EVERYDAY CREATIVITY: LESSONS LEARNT FROM TRANSFORMING AN IN-SERVICE TEACHER EDUCATION COURSE TO OPEN EDUCATIONAL RESOURCE

Tamás Péter Szabó, **Gomathy Soundararaj**, **Tea Kangasvieri**

Our team currently contributes to the Erasmus+ funded in-service teacher training program "Everyday Creativity" for teachers from four countries (Romania, Hungary, Italy and the Netherlands; see https://creativeschools.eu/). The current iteration of the course is based on a blended learning framework which enhances constructivist pedagogy (online and on-site group activities and peer support). The course content covers, among others, the areas of (1) learning space and multi-sensory teaching; (2) organization of interaction and technology in the school; and (3) teaching across subject boundaries (i.e., multidisciplinary education).

In this poster, we discuss some challenges and solutions of transforming the pedagogy of in-service teacher education to enhance openness. The current iteration of the course has been rather closed (e.g. pre-selected participants, a given time frame, on-campus sessions during an intensive week, teacher support and supervision). After the termination of the funding period, the sustainability of the course will be secured by transforming course materials into an Open Educational Resource (OER) for self-study or self-organized group study. In this poster, we ask how the pedagogical nature of the course changes in a new, open and unsupervised learning environment.

To seek answers to this question, we critically discuss the feedback on the current iteration of the course (gained from a questionnaire survey), and we present our current work stage of developing our OER, which is organized into five modules and is accompanied by a handbook. Using the handbook, learners can get insights into the pedagogical considerations behind the modules, and can get inspiration from the assignments of learners of the current iteration. Further, if they decide to team up with other learners, they can get hints for organizing their work.

Shifting from a closed to an open education model induces a substantial change in quality and learner experience: flexibility and learner independence grows, while expert supervision is not provided. Our poster discusses sample tasks from the learning modules as well as excerpts from the handbook manuscript to show how self-study or individually organized group study of in-service teachers is facilitated by our OER. Further, we discuss some ways in which OERs can be re-contextualized for supervised sessions in formal teacher education. In conclusion, we argue that implementations of open and closed educational models can be placed along a scale, and pedagogically sound transformations of learning materials increase the impact on in-service education in general and the sustainability of education development projects in particular.

Keywords: *in-service teacher education; transformation; Open Educational Resources; development project*

THE INTEGRATION OF PROBLEM SOLVING AND VALUE APPROACH:

THE SHIFT TOWARD HOW TO THINK

Sandrita Škėrienė

The globalization with large flows of information and intensive development of technologies poses new challenges for education. The focus is on the development of technical, technological skills, critical thinking, and problem solving. The latter is highlighting as one of the key competencies necessary for future professionals with expectation to incorporate it in every curriculum. Meanwhile, PISA (2015) results show that the development of problem solving abilities is insufficient. This may be due to being taught of what to think. This calls for the other kind of thinking to be taught. Value-based problem solving offers such a possibility.

Value-based problem solving is especially important for educators that solve various problems in their work and make in-a-moment decisions that cannot be reversed. While research from different disciplines deals with the development of problem solving abilities, little is known how future educators cope with problems, especially those that requires value-based approach. Based on the scientific literature review method, this paper addresses the issue of why value-based problem solving is a significant way of future educators' learning. First, a structurally linear process of problem solving highlighting its weakness is discussed. Second, the opportunities for integration of value-based approach and problem solving are revealed. Third, the implementations for value-based problem solving learning are suggested.

Keywords: values, problem solving, future educators

POSTGRADUATE PROFESSIONAL STUDY PROGRAM "SPECIAL EDUCATION TEACHER" IN UNIVERSITY OF LATVIA

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The diversity of pupil needs at schools is one of the most challenging and important tasks for education today. The postgraduate professional study program "Special Education Teacher" is professionally designed to extend the competence of teachers to educate and support pupils with a range of special educational needs in recognised mainstream primary, secondary, special school, special classes and other related educational settings. The study program offers a recognised postgraduate qualification for all support teachers working in the area of special educational needs and learning support. It is intended for working professionals who seek a program that combines relevant theory with practice. This article discusses why postgraduate students in Latvia decide to take up a postgraduate professional study program "Special Education Teacher" as well as the factors influencing their choice of the program.

The purpose of this paper is to describe the findings from a survey which is set out to explore experiences of graduates of the postgraduate study program in the University of Latvia and the necessity for such a program in the future. The paper also includes a discussion and an analytical review of similar postgraduate study programs in Europe.

Methodology

The article deals with theoretical findings and empirical data obtained with the help of a survey method.

Key words: Postgraduate Professional Study Program, Special Education Teacher, Education

EXPLORING POSSIBILITIES OF TRANSFORMATIVE LEARNING IN CONTINUING MEDICAL EDUCATION: A LITERATURE REVIEW

Reinis Upenieks

According to the author of the transformative learning theory, Jack Mezirow, transformative learning is "learning that transforms problematic frames of reference— sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets)—to make them more inclusive, discriminating, open, reflective, and emotionally able to change" (Mezirow, 2003, 58). Such an approach could be of great value in contemporary, changing world.

Changes are inevitable part of all walks of life; adults from different professions more often than ever face new challenges when previous knowledge, skills and attitudes become ineffective. It is also true for medicine and medical professionals. However, longstanding traditions of medical education have established such fundamentals as, for example, reliance on individual's professional performance rather than team-work; sanctity of hardly acquired knowledge and fixed techniques rather than learning from error and continuous improvement.

As an educator himself, the author of this paper is interested in transformative learning possibilities within the field of continuing medical education. By conducting a literature review the author seeks to answer the following questions: a) what is the scope and the nature of research and studies devoted to transformative learning in medical education, especially, continuing professional education; b) what recent challenges in medicine could be tackled introducing transformative learning principles in continuing medical education; c) what are lessons learned in other professions using transformative learning in adult education?

There is an intention to use Primo Discovery search engine and Web of Science database for the purpose of the literature review.

DEVELOPMENT OF METACOGNITION AWARENESS SCALE FOR GRADES 10-12

Edmunds Vanags

Pavels Pestovs

One of the goals of the National Development Plan 2014-2020 is to reduce the proportion of students with low cognitive skills and at the same time to increase the proportion of students with higher level cognitive skills. Developing a new assessment system, it is important not only to create tools for evaluating content but also for the transversal skills assessment. The aim of this study was to develop a new metacognitive awareness scale for 10th-12th grade pupils. The new instrument was based on the structure of the Metacognitive Awareness Inventory (Schraw, & Sperling, 1994), creating new items and making them specific to the content of science large scale assessment, according to the new curriculum. A total of 1,524 pupils (49.6% boys, 50.4% girls) aged $M = 15.30$ ($SD = 0.54$) participated at the several phases of the study. To find out the pupils' metacognitive awareness factors, 35 items - statements about different metacognitive activities - were developed. The factor analysis showed a good structure of 3 factors - planning, monitoring, evaluation, but a weak structure of other possible factors. The internal consistency of the overall scale was good ($\alpha = 0.91$) and of the individual scales was acceptable (planning $\alpha = 0.74$; monitoring $\alpha = 0.76$; estimation $\alpha = 0.80$). The discrimination and difficulty index levels met accepted psychometric criteria. Further research is needed to improve the factorial structure and develop the final version of the scale.

Keywords: metacognitive awareness inventory, internal consistency, science large scale assessment

THE IMPORTANCE OF DIGITAL RESOURCES IN DELIVERING MODERN LATVIAN LANGUAGE AND LITERATURE EDUCATION

Anna Vulāne
Elita Stikute

An essential component of the professional competence of specialists in various fields is the ability to effectively use electronic resources for the acquisition of linguistic, historical, cultural and other information.

There have been numerous original tools created for developing and teaching syllabi for both Latvian as a native and second language as well as Latvian literature in accordance with the standards agreed as part of the project "School 2030". Amongst the most important are the electronic dictionary "e-PUPA", "Latvian Language Manual", "Map of Linguistics" and the educational tool "Olūteņš" as well as "Latgalian Spelling Tool".

The aim of the study was to understand the functionality and effectiveness of using these e-resources in acquisition of Latvian language and literature.

The study was conducted using questionnaires, experiments and the descriptive method. The study concludes that:

- the use of electronic linguistic resources in the educational process is influenced by teachers' awareness about their existence and possibilities of use, the desire to diversify the content of teaching offering pupils and students contemporary materials,
- the use of dictionary, map and manual allows improving knowledge in all linguistic sub-branches, expanding pupils' vocabulary, obtaining linguistically correct information about words' phonetic, semantic structure, grammatical features, etymology, functional environment – colocations, patronymic systems, cultural labels, etc., as well as its correspondences in the Latvian language dialects and other languages,
- the educational tool "Olūteņš" can be used both across the country and in Latgalian schools for learning the Latgalian written language, local knowledge and cultural values,
- "Latgalian Spelling Tool" can be successfully used for the development of text-building skills,
- the resources "e-PUPA" and "Map of Linguistics" are not only useful for learning the Latvian language and literature, but also for foreign languages, history, cultural studies, geography and other subjects,
- all the above-mentioned electronic resources can be successfully used as educational tools for teachers, as scientifically correct sources of information as well as tolls for developing linguo-didactic experience,

- the advantage of electronic resources is their availability at any time and place, the ability to quickly and easily obtain the necessary information,
- the use of IT supports the learning of quality content in a digital environment and promotes the differentiation and diversification of the study process through modern forms of cooperation, as well as self-study and development of information processing skills.

Keywords: the Latvian language, literature, electronic linguistic resources, education

USING STRUCTURAL EQUATION MODELLING TO STUDY THE INFLUENCE OF PERCEIVED USEFULNESS AND PERCEIVED COMPATIBILITY ON STUDENTS' ATTITUDES TOWARDS USING IPAD

Bashar Zogheib

In this research an attempt has been made to test the integration of constructs from the Theoretical models, Technology Acceptance Model (TAM), Innovation Diffusion Theory, and Expectation–Confirmation Model in the educational field. It particularly uses Structural Equation Modelling with various constructs to investigate students' acceptance of using IPAD as a technological tool in undergraduate math classes in a Middle Eastern University. The survey in this study contained 150 university students enrolled in various undergraduate math classes at a Middle Eastern private American University and pursuing different fields of study. The empirical results support the theoretical model; it shows the influence of user satisfaction, perceived usefulness and perceived compatibility on students' attitudes towards using IPAD. Students welcomed the adoption of IPAD as a part and tool of the learning process. The findings of this research along with the ongoing research should encourage educators to put more emphasis on using technology in the learning process of mathematics.

Keywords: *technology; SEM; satisfaction; mathematics; educators*

APPROACHES TO EMBEDDING GLOBAL DIMENSION IN ADULT EDUCATION CURRICULUM: THE CASE STUDY OF THE HOSPITALITY BUSINESS TOOLKIT

Olga Zvereva, MIB, Mg.paed.

The purpose - The paper aims to present a conceptual overview of the approaches to embed Global Dimension in Adult Education Curriculum to learn and share global practices with adult educators and promote Education for Sustainable Development and Global Citizenship (ESDGC) for achieving the Sustainable Development Goals (SDGs) including SDG4 Quality Education and enhancing education overall.

The theoretical framework - Global Dimension including the concepts of Sustainable Development and Global Citizenship is initially related to the subject-oriented approach, the principles of Education for Sustainable Development (ESD) as well as ESDGC including SDGs are based on the principles of the competences leading to competencies that point at competency-based and problem-based approaches, but the qualification competences frame to curriculum-based approach. This overview provides a summary of the approaches to embed Global Dimension in adult education curriculum with discussion of the benefits, applicability and synthesis of various approaches, as well as a practical case framework on the example of the Hospitality Business Toolkit, a course in the Hospitality Management Programme 2018, designed by Pearson, the Business and Technology Education Council (BTEC).

The research/ study design – The framework is developed from a review of literature on the principles, approaches and global practices of embedding Global Dimension, ESD, ESDGC in the curriculum, interrelated with qualification and learning outcomes.

The methods or instruments – The grounded theory as an exploratory method was used for identification and conceptualization of the patterns to structure findings by the process of comparison of different approaches and practices. A case study was designed to demonstrate a practical application of optional embedding Global Dimension in the course design.

The description of the experience – The case illustrates the initially built-in concepts of Global Dimension by Pearson, BTEC by integrating legal, ethical and social, financial, human resource and department coordination aspects with additional optionally embedded sustainability topics in the course design, piloted in 2019 by Hotel School Hotel Management College, Riga, one of the EU Erasmus+ KA2 collaborative research project (2017-2019) contributors to the development of ESDGC adult educators' competence framework, course designs and guidance to embedding ESDGC in adult education.

Keywords: Global Dimension, Education for Sustainable Development and Global Citizenship (ESDGC), embedding, approaches, hospitality business

FOCUS ON CURRICULUM TRANSFORMATION BY EDUCATOR AND STUDENT ATTITUDE DEVELOPMENT TO DIGITAL COMPETENCE

Irēna Žogla, Svetlana Ušča and Mihails Kijaško

Vast quantities of information processed by digital technologies occupy an increasingly growing place in education and trigger search for understanding the essence of speedy changes to capture the most productive ways of their monitoring. Investigations indicate that the goals of education in general and of computer sciences in particular which dominated at the beginning of the 21st century have shifted from the accent on scoring disciplinary knowledge of facts to in-depth understanding of scientific ideas and concepts and to high order thinking of educators and students that is integrated with the transformational impact of technologies; curricula provide students with innovative knowledge and tools for deeper understanding and implementing digital technologies, as well as emphasize the development of creativity (Chai, & Kong, 2017), meanwhile the educators' attitude to technologies as educational tools differ across countries, cultural settings and universities. Even more, educators and students identify differences in their attitudes towards digital technologies and their usage. Much of the students' possible success in digital competence development depends on the educators' attitude to evolving amount of technologies, productive usage of the available equipment to achieve deep understanding of its transforming nature and appropriate changes of the educational process; therefore an effective usage of technologies for educational purposes needs a constant investigation to keep in balance all that constitutes inseparable parts of education at its tertiary stage and thus keep targeted the transforming process.

The present paper uses a part of the data collected by the Latvian-Ukrainian project „*Gender aspects of digital readiness and development of human capital in region*" (LV-UA, Nr.LV-UA/2018/3) and "*Implementation of Transformative Digital Learning in Doctoral Program of Pedagogical Science in Latvia*" (lzp-2018/2-0180) to trace if there are any significant differences in educators' and tertiary students' attitude to digital technologies (Glokhale et.al, 2013; Hofstede et.al, 2011; Sharma, 2009) and competence development, that might interfere with the transforming nature of technologies and students' digital competence improvement. The investigation addresses five positions which demonstrate educators' attitude to digital technologies: interest in learning about IT, practical value of IT, possible negative impact of IT, gender equity in using technologies, positive impact of technologies on work and human life.

The paper presents for a discussion educational principles forming a background for creating a model of educators' attitude development in further learning; these are grouped round the three components of the digital competence highlighting their essence and transformative character: (a) instrumental competence as an ability of completing one's job, (b) mastery level of this competence and (c) educators' expertise level or even excellence in creative innovations that promote the development of a tertiary institution or tertiary education in general. The foundations of the educators' attitude to digital technologies and their usage are discussed, as well as the transformational and

transformative character of digital technologies that interfere with the educators' attitude, general and unique qualities which a tertiary curriculum aims to nurture and educators' further learning helps to keep balanced.

Data analysis added by theoretical assumptions presents a theoretical and methodological background for further investigation by the above mentioned projects.