

# 11<sup>th</sup> World Conference

on Learning, Teaching and  
Educational Leadership

Christian University

St. Petersburg, Russia

13-15 September 2020



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**ABSTRACTS**

**BOOKS**

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# **11th World Conference on Learning, Teaching and Educational Leadership (WCLTA-2020)**

Christian University  
St. Petersburg, Russia  
13-15 September 2020  
**“ONLINE CONFERENCE”**

## **ABSTRACTS BOOKS**

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## KEYNOTES



**Prof. Dr. Servet Bayram**

Director, Institute of Educational Sciences  
Chairman, Department of Computer Education & Instructional Technologies, Coordinator, Program of Information Technologies & Social Media Education,  
Yeditepe University, İstanbul

**Keynote Title:** “Transforming Educational Issues from Pedagogy to Cybergogy: How students are being prepared for Society 5.0”

**Key Terms:** Educational Policy and Educational Paradigm Shifts, Health and Environmental Factors in Society 5.0 Education, Digitalization and Revolutions in Educational Leadership, Computational Social Science and Educational Neuroscience, Educational Research Examples and Future Learning

**Bio:** Prof. Dr. Servet Bayram graduated with a bachelor’s degree from Department of Psychology at the Istanbul University in 1985. After receiving the Certificate of Teaching and the title of Psychologist, he worked as a Consultant/Educational Psychologist at the Bogazici University in Istanbul between 1988-1992. When he completed his master’s degree in Guidance & Counseling at the Bogazici University, he went to the United States for doctoral studies. He completed his doctoral studies in “Learning and Teaching Technologies” and received a Doctorate degree from the University of Pittsburgh, Pennsylvania in 1995. As a Post-Doctoral Fellow, he studied on the Electronic Performance Support and Information Systems at the Indiana University, Bloomington in 1996.

Between 1997-1998, he served as a Second Lieutenant & Psychologist at the Air Force Academy in Istanbul. Then as an Assistant Professor, he started to manage curriculum of the Department, Computer Education, and Instructional Technology, at the Marmara University. In 2000, he was promoted to Associate Professorship. Then he became a full professor in 2006. Between 2000 and 2015, he had conducted his studies as a Chairman of the Department at the Marmara University, Istanbul.

In 2015, He was transferred to the Yeditepe University in Istanbul. Then he was promoted to Vice Rectorate of the University. As a Vice Rector he completed the “Curriculum Optimization Studies” of the University between 2015 and 2016. Now, he is the Director of Institute of Educational Sciences at the Yeditepe University. Also, he is Chairman of the Department, Computer Education & Instructional Technologies and Coordinator of the Program, Information Technologies & Social Media Education at the Yeditepe University.

His present professional research interest focuses on Psychology of Learning, Neuroscience, Psychological Testing, Human-Computer Interaction, Graphical User Interface Design, Educational Software, School Achievement, Motivation, and Innovative Computer Tools.



**Prof. Dr. Nilgün Sarp**

Ph.D Professor of Child Development and Health Istanbul Bilgi University Dean, Faculty of Health Sciences Istanbul – Turkey Editor-in Chief, International Journal of Emerging Trends in Health Sciences

**Keynote Title:** “Child Health and Environment Factors”

**Abstract:** Climate change is affecting human health, education, and environment. In order to cope with this emerging threat, authorities must evaluate current impacts of their systems and then prepare and implement adequate adaptation measures. Effective adaptation measures should be taken, and planners must provide coherence among sectors. This strategic approach requires an objective understanding of the full related economic implications of climate change and of the range of alternative or complementary adaptation activities. The impacts of climate change on health, education and the environment will be shared at this conference.

**Bio:** Prof. Nilgun Sarp, Ph.D., was born on June 27, 1958 in Ankara. She graduated from Hacettepe University with a Bachelor of Science in Child Development in 1980. She obtained her second undergraduate degree, a Bachelor of Science in Special Education, in 1983 from Ankara University. Returning to Hacettepe University, she completed her Master of Science in Public Health-Health Education and Ph.D. in Family Health. Furthermore, she completed her Post-Doc at the Health and Hospital Management department in Birmingham University. In 1994, she became Associate Professor in Child Development and Education, appointed by Higher Education Council (YOK). In 1996, she also became Associate Professor in Health Management in Ankara University. Later, she became a Professor in both fields of Health Management and Child Development.

Between 1980 and 1990, she worked at the Social Services and Child Protection Agency in Ataturk Children Home as a child development education specialist, an assistant manager, and a manager. She was a Social Research Expert and the Head of Department at the Prime Ministry Family Research Institution in 1993-1996.

Between 1996 and 2012, she was the Head of Health Management Department, Deputy Dean, and Dean at the Faculty of Health Sciences in Ankara University.

She served as the Rector at TRNC Girne American University, completing her year-long YOK Article 39 appointment. She was the Founding Dean at the Faculty of Health Sciences in European University of Lefke, where she worked for five years. She retired from Ankara University in 2012. She worked at the Faculty of Health Sciences in Bahçeşehir University as the Head of Child Development Department in 2015-2016. She worked at the Faculty of Health Sciences in Üsküdar University as the Head of Child Development Department and as the Director of Institute of Health Sciences. She is currently working as a Dean of Faculty of Health Sciences at Bilgi University-Istanbul.

She was a Fulbright Research Professor at the Disaster, Crisis and Risk Management Center in George Washington University in Washington D.C. in 2002-2003; an Erasmus Exchange Academic in July-September 2007 at the Center for Careers and Employment Research in East Anglia University; and a visiting researcher at the NHS Institute of Innovation and Implement in London, UK in the Leadership Project in June-September 2005.

She has 63 articles published in national and international scientific journals, 38 reports, five international book chapters, and 14 chapters in national books. She was also an editor and writer for

12 books. Two of her books, "Quality Control Applications" published by Siyasal Bookstore and "Natural Disasters, Protecting Public Health" published by Nobel Bookstore are used as undergraduate and graduate course books. She has completed 20 national and international projects and is a member of many national and international organizations in her field.



**Dr. Margarita Vinagre**

Autonomous University of Madrid, Spain

**Keynote Title:** "Facing up to diversity and difference: Exploring multilingual landscapes in virtual exchange"

**Abstract:** Recent studies have emphasized the importance that the linguistic landscape, understood as the use of language as it appears in the public space, can have for language learning since, in this space, language, culture and identity unequivocally intertwine (Blackwood et al. 2016). This language takes the form of road signs advertising billboards, street names, place names, commercial shop signs, menus, graffiti, which are multimodal, multi-genre and sometimes multilingual. These signs structure our interaction with the public space telling us where we are, what to do or how to be. At the same time, "the signs can be a display of identity by certain language groups, and the use of several languages in the linguistic landscape can contribute to its linguistic diversity" (Cenoz and Gorter, 2008, p.268). In the linguistic landscape, anyone can become a language learner and a learning opportunity may occur anywhere.

This presentation aims to offer a framework that allows for the incorporation of the linguistic landscape to promote intercultural learning, provide examples of language learning activities in and with the linguistic landscape and offer suggestions regarding the integration of the linguistic landscape in virtual exchanges in order to trigger discussions about language status, power, social representation and (cultural) identity, that may encourage students to reconcile their own knowledge and experience with those of their partners.

**Bio:** Margarita Vinagre is Associate Professor at Autónoma University of Madrid where she teaches Educational Technologies and English Language and Linguistics. Her main research interests are the integration of technologies in the foreign language classroom, computer-mediated communication, and the implementation of intercultural exchanges for the development of transversal competences. She has published widely on these topics is a member of the Editorial Boards of the EUROCALL Review and CALICO (Computer-Assisted Language Instruction Consortium) journals. She is currently the coordinator of the VELCOME project on the integration of virtual exchange for key competence development in higher education, with 20 participating researchers from 5 countries.

## ABSTRACTS

### TECHNICAL TRANSLATION IN TRANSLATOR TRAINING

**Gabriella Kovács**, Sapientia Hungarian University of Transylvania

#### **Abstract**

As technology advances, the demand for translations of technical texts has increased significantly, requiring more and more specialized translators. In our study, we assess the extent to which translation trainees are able to translate technical texts from the target language (in our case English) into their mother tongue (Hungarian) or from Hungarian to English. Their performance is compared to that of engineering students with the same level of English (B2 / C1). Our purpose is a continuous review and improvement of our curriculum, therefore we examine how technical knowledge can help translator work, how this knowledge can be taught in translator training, and what strategies can be used in translation in the absence of engineering expertise.

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# Problem solving: relationships between reading comprehension and computational thinking

Katalin Harangus, Sapientia Hungarian University of Transylvania

## Abstract

Our rapidly evolving digital world presents new challenges in education. The general requirement of the labour market is that graduates should have skills that meet the employers' expectations. In the next five years, problem solving will be one of the main characteristics of an ideal employee. In our study, we examined computational thinking within problem solving. The aim of our research was to assess the degree to which students in university education had acquired the ability to use computational thinking at school, and to show the relationship between their level of literacy and algorithmic thinking. In this study we compare students' level of text comprehension from engineering and humanities departments, we analyse the relationships between the operations of text interpretation and algorithmic thinking, and examine the role of problem solving ability in complex tasks. In the tasks where students not only had to retrieve information from the given text, but also had to recognize the interrelationships between parts of the text and reflect on its content, the achieved averages were low. Students who had had the opportunity to acquire an algorithmic approach and thinking in high school performed above average on all assignments. This suggests that more attention should be paid to the opinion of those professionals who suggest that computational thinking should be developed to the level of writing, reading comprehension and mathematics.

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# The Effect of Flipped Classroom Model on Self-Efficacy: A Meta-Analysis Study

Özgür Tatal, Ministry of National Education

## Abstract

The flipped classroom model which has possibility of online and face to face learning offers a new alternative for educators who strive to use educational technologies in a meaningful and effective way in their classrooms. Numerous researches have been carried out in Turkey and abroad in recent years to test the effectiveness of this model. In some studies, the result of the flipped classroom model increasing self-efficacy compared to the traditional method has been achieved, while in some studies it has been reached that the self-efficacy has not significantly increased. The purpose of the research is to analyse the results of experimental studies which investigate the effect of flipped classroom on self-efficacy by using meta-analysis technique. In this research, meta-analysis method is used to designate effectiveness of the flipped classroom model. A literature search was conducted to reach the experimental studies conducted in Turkey and abroad about the model. 15 studies fit the inclusion criteria listed in 4463 were subjected to meta-analysis process as the result of the research based on determined keywords. 17 effect sizes are obtained from these studies. As a result of merging of studies, the effect size of the flipped classroom model, between 0,246 and 0,592 confidence interval, has been found 0,419 (%95 CI, SE=.088) by using random effects model. The obtained result shows that flipped classroom model have a modest and positive impact on self-efficacy with regard to traditional lecture based instruction. Among the studies that are included in this meta-analysis, 15 of 17 studies have positive, 2 of 17 studies have negative effect size values. In these studies which have positive effect value; 3 of them are at poor, 4 of them are at modest, 6 of them are at moderate and 2 of them are at strong effect size level.

**Keywords:** Flipped classroom, inverted classroom, meta-analysis, self-efficacy

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# The Effect of Flipped Classroom Model on Motivation: A Meta-Analysis Study

Taha Yazar, Dicle University

Özgür Tatal, Ministry of National Education

## Abstract

The interest in flipped classroom, a blended learning model, has recently increased considerably. Several researches have been carried out in Turkey and abroad in recent years to test the effectiveness of the model. Nevertheless, the results of studies reporting on the effectiveness of the flipped classroom model are inconsistent. While many studies indicated that flipped classroom has a positive effect on students' motivation, some others reported on a negative effect. The purpose of this meta-analysis is to analyse the results of experimental and quasi-experimental studies which investigate the effect of flipped classroom on motivation. In this research, meta-analysis method is used to designate effectiveness of the flipped classroom model. A literature search was conducted to reach the experimental and quasi-experimental studies conducted in Turkey and abroad about the model. 17 studies fit the inclusion criteria listed in 4463 were subjected to meta-analysis process as the result of the research based on determined keywords. As a result of analyzing of studies, the effect size of the flipped classroom, between 0,77 and 0,594 confidence interval, has been found 0,336 ( %95 CI, SE=.132) by using random effects model. The obtained result shows that flipped classroom have a modest and positive impact on motivation with regard to traditional lecture based instruction. Among the studies that are included in this meta-analysis, 14 of 17 studies have positive, 3 of 17 studies have negative effect size values. In these studies which have positive effect value; 2 of them are at poor, 5 of them are at modest, 6 of them are at moderate and 1 of them is at strong effect size level.

Keywords: Flipped classroom, inverted classroom, meta-analysis, motivation.

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# Virtual and augmented reality technologies as an innovative tool in education

Nadezhda Sivrikova

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## Abstract

Digital technologies have become a natural part of the educational process in the modern world. The situation with the coronavirus pandemic led to the fact that in Russia all educational institutions switched to a remote training regime. This showed the relevance and need to ensure the educational process through modern digital technologies. Science has yet to analyze the results of this all-Russian experiment. But the first voices are already appearing that the world will not be the same. The process of introducing digital technologies into education has received a strong impetus, which is no longer possible to stop. Therefore, it is now important to analyze scientific research on innovations related to the introduction of new technologies into education. This work examines the experience of introducing virtual and augmented reality technologies into education. An analysis of 52 papers on the experience of introducing VR and AR technologies into education showed that VR allows the formation of complex specific skills without risks; VR has a large motivational impact associated with immersion and real-time presence effects; there are differences in attitudes to VR technology in education related to age. The results of numerous studies are summarized and systematized in the following sections: classification of VR technologies in educational projects depending on the intensity of the immersion effect; the main directions of using VR technologies in education (extracurricular education, special education, college education; the higher education); conditions for introducing VR into the educational process; prospects for using VR in the organization of remote forms of training.

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# Correlation between cyberloafing and media consumption. Results of the teenager's self-reports

Nadezhda Sivrikova,

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Elena Nemudraya,

Tatyana Lebedeva,

## Abstract

The study of the correlation between cyberloafing behavior and the features of teenage media use became the goal of this research. 121 teenagers (13-15 years old) became participants in the survey. There were 61 boys and 60 girls. The results of the study showed that the phenomenon of cyberloafing is not widespread among schoolchildren in Russia. Most often, during lessons, teenagers search the network for the information they need or communicate. The most popular sources of information for adolescents are the Internet, books, and television. The results of the study show that the formation of cyberloafing behaviors is associated with quantitative and qualitative features of adolescent media consumption. The level of cyberloafing depends on media competence, as well as on the characteristics of the perception and processing of media information. The limitations of the presented study are discussed in the final part of the article.

Keywords: cyberloafing, media use, generational psychology, adolescents, teenagers

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# A study on Turkish university students' digital game-playing preferences, learning styles, gamification user types and gender

Osman Gazi YILDIRIM,

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Ali GERIS,

## Abstract

The purpose of this study is to explore Turkish university students' digital game playing preferences, to examine relationship between university students' learning styles, gamification user types and to identify gender differences in terms of learning styles and gamification user types. The participants comprised one hundred and eighty-one (181) university students enrolling at a state university in Turkey. An online questionnaire containing questions related to students' demographics and digital game preferences, Gamification User Types Hexad Scale and Grasha-Riechmann Learning Style Scale were used as data collection tool. The data were analyzed using descriptive statistics (mean, percentage) and chi-square analysis. The results reveal that 65.7% of participants preferred to play online games rather than playing offline games and 75.7% participants played digital games on a daily basis. Chi-square tests of independence were performed to examine the relationship between students' learning styles, gamification user types and gender. A chi-square test of independence showed that there was no significant association between students' learning styles and gamification user types. In addition, there was also no significant relationship between gender and students' learning styles. However, a significant relationship was found between gender and students' gamification user types. It was detected that while most of the male students were categorized as "Achievers", female students were mostly categorized as "Players" and "Philanthropist".

Keywords: Digital games, learning styles, gamification user types. gender, game preferences

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# Students' preferences in topics related to human health, natural and social environment through e – learning

**Ivanka Buzov**, PhD in Sociology, Assistant Professor, University of Split, Faculty of Humanities and Social Sciences, Department of Sociology

## Abstract

The use of information and communication technology and the lack of direct contact of students with the teacher characterize completely online learning (hereinafter e-learning) which puts the student at the center of the educational process, providing a dynamic environment and helping them to achieve educational outcomes. In this context, education for a healthy and sustainable life is set which is one of the dominant educational perspectives in the 21st century. This paper presents and analyzes the results of research on the preferences of students of 5th, 6th, 7th and 8th grade of primary school on a representative sample (N = 162), ie students of the second and third educational cycle for teaching contents within Nature and Biology courses that are related to the topics of human health, and the natural and social environment. During two months all students had completely online classes in Nature and Biology during which they learned topics related to human health, but also topics related to the environment. In general students show a statistically significantly greater interest in human health than in environmental topics. The results of the research showed that girls in 5th and 7th grade show a statistically significantly higher interest in environmental topics compared to boys. In 6th grade, boys have a statistically significantly higher interest in environmental topics, and in 8th grade the influence of gender on preferences has not been identified. The observed differences can be attributed to the teaching content because in the 5th and 7th grade of primary school the dominant topics are the structure of plant and animal organisms and their protection which are highly interesting for girls. The 6th grade is dominated by topics about energy for which boys show a statistically significantly higher interest. Therefore, in connection with students' preferences for certain topics, it is concluded that there is an influence of students' gender factors, and the latter depends on the teaching content.

**Key words:** *e-learning, human health, natural environment, social environment, students' preferences*

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# The Impact of Internet of Things (IoT) Education on Academic Motivation and Teacher Competencies

Aliye Saraç,

Nesrin Özdener,

## Abstract

With the technological developments of the digital age, teachers have been expected to have technological knowledge and required skills to use technology in meaningful pedagogical tools. Taking the attractiveness of information communication technologies, their ability to motivate young people and the fact that working and learning patterns of digital natives are changing into consideration, the need to create and research new trends in education and training activities is apparent. Considering the new developments shaping the social structure and technology, Internet of Things (IoT), which is one of the components of Industry 4.0 in today's technology, emerges as a remarkable subject under which multidisciplinary studies are carried out. Reconstructing the object definition and increasing its importance, usage area, and density day by day, IoT technologies find their place in education and training studies. Associating the usage area of IoT technology with daily life is easy and simple, it is possible to process environmental data, input/output processes are concrete, this technology addresses many interdisciplinary fields, and internet technologies are used; all these features make it possible to integrate IoT technology in the education field. The aim of this study is to examine the effects of IoT education on the academic motivation of pre-service teachers who are educated in different disciplines and to present the opinions of the pre-service teachers about the contribution of this education to teacher competence. This study was designed in a mixed design in which qualitative and quantitative research methods are used together. This study was carried out with a total of 36 pre-service teachers, 19 from Science and 17 from Computer Education and Instructional Technology departments, who were studying at Marmara University. To determine the effect of the 7-week IoT training on the academic motivation of teacher candidates, "Academic Motivation Scale" was used as a pre-test before the training and as a post-test after the training. In addition, the data obtained by open-ended questionnaire forms were analysed by content analysis and themes were formed to analyse the opinions of the participants about the contribution of this training to teacher competence. It was concluded that there was a significant increase in the academic motivation of the teacher candidates after the IoT training in favour of the post-test ( $t(35)=3.61, p < .05$ ). It has been determined that pre-service teachers, who could refer to more than one theme in their answers to the questionnaire, think that IoT training has a positive impact on their professional life in terms of contributing to project development skills (30%), improving coding skills (16.7%), job opportunities (13.3%), increasing self-confidence (10.0%), gaining mentoring ability (10.0%), positively influencing 21st century teacher competence (10.0%), providing interdisciplinary group work experience (6.7%), using the technology in education (6.7%), seminal experience (6.7%), arousing interest in technology (3.3%), and supporting the ability to generate ideas (3.3%). This study is important in terms of setting an example for faculties aiming to train teachers in line with the needs of the digital age by creating an educational platform that allows interdisciplinary projects including IoT technology. The findings are expected to contribute to the institutions and organizations developing educational strategies and field experts in education faculties, as well as light the way to the studies to be carried out in the future

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