

Time	Monday, August 29th
18:30-21:30	Registration
	Welcome Reception-Social Event
Location:	<i>Museums of the Pancyprian Gymnasium</i>
Time	Tuesday, August 30th
08:30	Registration
Location:	<i>University of Cyprus</i>
09:00-09:30	Opening Session
Location:	Building: XΩΔ02, Room: B205
	Welcome and Opening Speech by the Rector of the University of Cyprus, Taso Christofide
09:30-11:00	Keynote 1
Title:	Problematization, narrative and fiction in science classroom
Speakers:	Catherine Bruguière and Denise Orange Ravachol
Location:	Building: XΩΔ02, Room: B205
Chair:	Jörg Zabel
11:00-11:30	Coffee Break
Location:	1 st floor balcony
11:30-12:30	Parallel Paper Session 1
	Paper Session 1A-Teaching and Learning with Educational Technology
Location:	Building: XΩΔ01, Room: 109
Chair:	Anat Yarden
Title:	Perspectives on Social Media Use in Biology Education – A Qualitative Study with German Pre-Service Biology Teachers
Author(s)	Alexander Bergmann, Anna Beniermann and Alexander Büssing
Title:	An intervention to encourage plant appreciation in Life Sciences teachers - a case study
Author(s)	Benjamin A. Coetzer and Amelia L. Abrie
Title:	Characterizing Ecology and Evolution ELearning Units Designed by Biology Teachers
Author(s)	Merav Siani, Carmel Bar and Anat Yarden
	Paper Session 1B-Outdoor and Environmental Education
Location:	Building: XΩΔ01, Room: 108
Chair:	Marie-Christine Knippels
Title:	Teachers' self-efficacy and practices in ESD: A longitudinal study on the impact of professional development
Author(s)	Jelle Boeve-de Pauw, Daniel Olsson, Teresa Berglund and Niklas Gericke
Title:	The secondary school teachers' conceptualizations of the education for sustainable development and it's dimensions
Author(s)	Rolf Saarna and Anne Laius
Title:	Fostering Environmental Citizenship competences through Socio-Scientific Inquiry-Based Learning
Author(s)	Michiel van Harskamp, Marie-Christine Knippels and Wouter R van Joolingen

	Paper Session 1C-Teaching Strategies and Learning Environments
Location:	Building: XΩΔ01, Room: 103
Chair:	Tali Tal
Title:	The contribution of citizen science in an outdoor environment to improving achievements and attitudes towards science of students from low socio-economic status.
Author(s)	Lavi Oren, Nirit Lavie Alon and Tali Tal
Title:	Subject student teachers' views on key environmental problems and their role as a solver of these problems
Author(s)	Eija Yli-Panula and Eila Jeronen
Title:	Scientific inquiry in mentor teacher training: a study about a biology-related mentor training and the impact on practical experience settings
Author(s)	Emanuel Nestler and Carolin Retzlaff-Fürst
12:30-13:45	Lunch
Location:	<i>Restaurant A.Zorbas</i>
13:45-15:30	Parallel Poster Session 1
	Poster Session 1A-Outdoor and Environmental Education
Location:	Building: XΩΔ01, Room: 104
Chair:	Gregor Torkar
Title:	Partnerships for Science Education: public health education and awareness with digital technologies
Author(s)	Dimitris Chalkidis, Carolina Santos and Tassos A. Mikropoulos
Title:	Nature play as a way of learning biology in early years
Author(s)	Marjanca Kos, Martina Mohorič, Luka Praprotnik, Sue Dale Tunnicliffe and Gregor Torkar
Title:	Mapping adolescents' nutritional knowledge
Author(s)	Matina Moshogianni and Martha Georgiou
Title:	Inter-sectorial partnerships in implementing climate change education in the Israeli school system
Author(s)	Nofar Naugauker, Orit Ben Zvi Assaraf, Daphne Goldman and Efrat Eilam
Title:	Unveiling the more salient components of Education for Environmental Citizenship in environmental Citizen Science initiatives: A systematic literature review of empirical research
Author(s)	Anastasia Adamou, Yiannis Georgiou, Demetra Hadjichambi and Andreas Hadjichambis Ch.
Title:	Symbolic experiences of nature on near-natural schoolgrounds
Author(s)	Anna-Lena Stettner and Armin Lude
Title:	How inclusive are the Environmental Education Centers in Greece
Author(s)	Rodanthi Lyraki and Marianna Kalaitzidaki

Title:	Teachers' experiences in a pilot project based on schoolyard biodiversity
Author(s)	Arnau Amat, Isabel Jiménez Bargalló, Chadia Rammou and Jordi Martí
Title:	Good ways to teach species knowledge of plants...
Author(s)	Martin Feike, Susan Pollin and Carolin Retzlaff-Fürst
	Poster Session 1B-Teaching Strategies and Learning Environments
Location:	Building: XΩΔ01, Room: 103
Chair:	Graça S. Carvalho
Title:	Diagnosing of valuing and decision-making competences in biology lessons
Author(s)	Malte Ternieten and Doris Elster
Title:	An app for teaching basic chemistry to biologists: spatial ability, prior knowledge, cognitive load and usability
Author(s)	Stefan Witzke and Claudia Nerdel
Title:	Learning trajectories in evolution education: analysing digital concept mapping using methods of learning analytics
Author(s)	Berit Katharina Czinczel, Daniela Fiedler and Ute Harms
Title:	Learning communities for the professional development of digital teaching
Author(s)	Melanie Ripsam and Claudia Nerdel
Title: 103	An Investigation of Pre-Service Biology Teachers' Enacted TPACK.
Author(s)	Alexander Aumann and Holger Weitzel
Title:	The shell model as a planning model for distance teaching
Author(s)	Annemarie Rutkowski, Christian Förtsch, Dagmar Traub, Monika Aufleger and Birgit Jana Neuhaus
Title:	Pre-service Teachers' Behavioral and Control Beliefs on the Subject-specific Use of Digital Media in Biology Classrooms
Author(s)	Maja Funke and Jörg Zabel
Title:	Reflections of prospective biology teachers on the construction and use of smartphones as microscopes in biology classes
Author(s)	Vida Lang and Andrej Šorgo
Title:	Teacher's perceptions of objectifying explanatory black-boxes in the biology classroom
Author(s)	Gur Arie Livni Alcasid and Michal Haskel-Ittah
Title:	Elaboration and validation of experimental activities on fermentation/respiration using easily-accessible materials to be implemented in Mozambique
Author(s)	Graça S. Carvalho, Manecas Azevedo and Paulo Mafra
	Poster Session 1C-Students' Conceptions and Conceptual Change
Location:	Building: XΩΔ01, Room: 102
Chair:	Michal Haskel-Ittah

Title:	Analysis of Covid19-related biological mechanistic information presented in the media
Author(s)	Shanny Mishal and Michal Haskel-Ittah
Title:	Students' conceptual understanding of core ideas in biology
Author(s)	Helin Semilarski and Anne Laius
Title:	Primary student's ideas about biodiversity contents in a biodiver project
Author(s)	Chadia Rammou, Arnau Amat, Isabel Jiménez Bargalló and Jordi Martí
Title:	Urban and rural children's perceptions of farm animals and pets
Author(s)	Eliza Rybska, Paulina Smoła and Costas Constantinou
Title:	Where do plants get their mass from? Using drawings to assess secondary students' modelling skills and their ideas about plant growth
Author(s)	Zofia Chyleńska, Eliza Rybska, Joanna Wojtkowiak, Pantelitsa Karnaou and Costas P. Constantinou
Title:	Evolution Education: Difficulties in Population Thinking and how it develops in Upper Secondary School
Author(s)	Martin Scheuch, Gerald Fuchs, Christine Heidinger and Heidemarie Amon
Title:	Primary school pupils facing a eutrophication problem: causes, consequences and solutions
Author(s)	Mercedes Jaén García, Isabel Banos-González, Patricia Esteve-Guirao and Magdalena Valverde Pérez
Title:	Conceptions of students and teachers about the biological impact of climate change
Author(s)	Britta Bueker and Dominik Begerow
Title:	Combining behavioral and neuroimaging research on university student error detection in biological models
Author(s)	Joe Dauer, Mei Grace Behrendt, McKenna Elliott and Caron A.C. Clark
15:30-16:00	Coffee Break
Location:	1 st floor balcony
16:00-17:30	Parallel Paper Session 2
	Paper Session 2A-Language and Biology Education
Location:	Building: XΩΔ01, Room: 109
Chair:	Michael Ewig
Title:	Narrative Explanations and Temporality of Natural Selection: A Case study in a French Grammar School
Author(s)	Fabienne Paulin, Catherine Bruguière and Jörg Zabel
Title:	Reading a fictional storybook in a primary biology lesson: questioning the reasons of development of life on Earth
Author(s)	Frederic Charles
Title:	Plain Language Texts in Biology Classes for Fifth-Graders – Influences on the Declarative Knowledge and Attitudes towards them

Author(s)	Melanie Schaller and Michael Ewig
Title:	Piloting the students' learning activity: the didactic language gestures of the biology teacher
Author(s)	Lhoste Yann
	Paper Session 2B-Teaching Strategies and Learning Environments
Location:	Building: XΩΔ01, Room: 103
Chair:	Lars Meyer-Odewald
Title:	Competence Matrices in Biology Education – An Instrument to Encourage the Basic Needs Fulfilment of all Students in Heterogeneous Learning Groups?
Author(s)	Marlen Grimm and Carolin Retzlaff-Fürst
Title:	Comparing experimental protocols as method of teacher education in the context of scientific inquiry
Author(s)	Lars Meyer-Odewald, Kathrin Ziepprecht and Rita Wodzinski
Title:	Future-oriented Pedagogy for Molecular Biology Inquiry-based Learning in High School Biology Laboratories
Author(s)	Dana Sachyani, Pirchia Tamar Waxman, Irit Sadeh, Shoshana Herman, Mor Levi Ferber, Michal Yacobi, Omer Choresch, Efrat Link, Shiri-Rivka Masa, Samuel Ginsburgand and Michal Zion.
Title:	Elementary school students' evaluation of explanations to biological phenomena
Author(s)	Yael Shtechman, Marida Ergazaki and Michal Haskel-Ittah
	Paper Session 2C-Teaching Strategies and Learning Environments
Location:	Building: XΩΔ01, Room: 108
Chair:	Michael Reiss
Title:	Investigative school research projects in biology: Effects on students
Author(s)	Wilton Lodge, Michael Reiss and Richard Sheldrake
Title:	Concept mapping as an adequate retrieval-based learning opportunity in biology
Author(s)	Sina Lenski, Mirlinda Mustafa and Jörg Großschedl
Title:	The effects of a peer tutorial with an integrated learning strategy training on the biology students' use of learning strategies in university
Author(s)	Matthias Wilde and Svea Kleinert
Title:	Validation of a scoring rubric to measure pre-service biology teachers' lesson plan quality
Author(s)	Leroy Großmann and Dirk Krüger
17:30-18:30	Research Café* & more**
Location:	Building: XΩΔ01, Room: 103
	*An open space where an individual or group of researchers can present projects or relevant information for the ERIDOB community. Please let the Local Committee know in advance if you wish to present something. ** More rooms will be available to use if you wish to discuss any other subject.
20:00	ECR Party-Social Event

Location:	<i>The Old Power House</i>
Time	Wednesday, August 31st
09:00-10:30	Parallel Session 3
	Paper Session 3A-Outdoor and Environmental Education
Location:	Building: XΩΔ01, Room: 108
Chair:	Marcus Hammann
Title:	I want to engage my pupils in climate change, but...
Author(s)	Mikael Rydin, Niklas Gericke, Jesper Haglund and Nina Christenson
Title:	Personal relevance in high school students' nature experiences: Findings from the draw-and-write method
Author(s)	Marcus Hammann
Title:	Action Competence for Insect Preservation (ACIP) – A new framework and quantitative scale to take action for insects
Author(s)	Peter Lampert, Daniel Olsson and Niklas Gericke
Title:	An Action Research Approach for the development of children's environmental motivation through their participation in a schoolgarden project: Reflections and Revisions
Author(s)	Anthi Christodoulou and Konstantinos Korfiatis
	Paper Session 3B-Scientific Thinking, Nature of Science and Argumentation
Location:	Building: XΩΔ01, Room: 103
Chair:	Dina Tsybulsky
Title:	Pre-service biology teachers' socioscientific decision-making: Analyzing structural and content complexity in the context of a mandatory Covid-19 vaccination
Author(s)	Nina Minkley, Carola Garrecht and Moritz Krell
Title:	Enlightening Our Visitors: Natural History Museum Educators' Conceptualize the Integration of NOS When Addressing Ecological and Evolutionary Aspects of Exhibits
Author(s)	Anna Pshenichny-Mamo and Dina Tsybulsky
Title:	The Role of Biological Content-Knowledge for Abductive Reasoning in Modeling
Author(s)	Paul Engelschalt, Dirk Krüger and Annette Upmeier zu Belzen
Title:	Effects of (non-)restrictive learning opportunities on the development of research competence in biology education
Author(s)	Lea Gussen, Fabian Schumacher, Laura Ferreira González, Kirsten Schlüter and Jörg Großschedl
	Paper Session 3C-Teaching Strategies and Learning Environments
Location:	Building: XΩΔ01, Room: 109
Chair:	Christina Ottander
Title:	Promoting digitally supported experimentation in heterogeneous classes through teacher training
Author(s)	Patrizia Weidenhiller, Susanne Miesera and Claudia Nerdel

Title:	The influence of International collaboration on open inquiry-based teaching - A case study
Author(s)	Pirchia Tamar Waxman, Christine Girtain, Dana Sachyani, Galit Karadi, Irit Sadeh, Shoshana Herman, Mor Farber Levi, Michal Yaacobi, Omer Choresch, Efrat Link, Samuel Ginsburgand and Michal Zion
Title:	Using educational technologies to characterize students' explanation types as means to promote personalized teaching and learning
Author(s)	Moriah Ariely, Tanya Nazaretsky and Giora Alexandron
Title:	Digital science competence: Secondary school students' reasoning about filter bubbles and search engines
Author(s)	Anna Lodén, Johanna Lönnngren and Christina Ottander
10:30-11:00	Coffee Break
Location:	1 st floor balcony
11:00-12:30	Parallel Session 4
	Paper Session 4A-Students' Conceptions & Conceptual Change
	Symposium 1: Evolution education research across the educational stages: Obstacles and opportunities for teaching and learning evolution
Location:	Building: XΩΔ01, Room: 108
Chair:	Daniela Fiedler
Title:	What about the children? Developing an instrument to measure knowledge about evolution in kindergarten
Author(s)	Isabell K. Adler, Daniela Fiedler and Ute Harms
Title:	Comparing elementary school students' predictions and explanations of evolutionary processes- an exploratory study within the EuroScitizen network
Author(s)	Lucía Vázquez Ben, Patrícia Pessoa, Neil J. Gostling, Nausica Kapsala, Alexandra Moormann, Giulia Realdon, Mónica Arias, Alessandra Beccaceci, Livia Bianchet, Giulia Bombi, Moraima Castro-Faix, Margarida M. Marques, María del Carmen Souto García and Xana Sá-Pinto
Title:	Is this about me? Understanding the impact of anthropocentrism on undergraduate learning about antibiotic resistance
Author(s)	Catie Nielson and John D. Coley
Title:	Diagnosing evolutionary explanations: Effects of a chatbot support system on teacher students' diagnostic competence
Author(s)	Daniela Fiedler, Daniel Schönle, Christoph Reich and Ute Harms
	Paper Session 4B-Students' Values, Attitudes and Decision Making
Location:	Building: XΩΔ01, Room: 108
Chair:	Anna Beniermann
Title:	Aquaculture - how pre-service teachers' perception interacts with environmental values, system knowledge and conceptions of environmental concern for decision
Author(s)	Michaela Maurer, Verena Pietzner and Corinna Hößle

Title:	Attitudes towards Controversial Science Issues and their justifications in pre-service biology teachers
Author(s)	Anna Beniermann, Sascha Kurz and Annette Upmeier zu Belzen
Title:	Do Biology Textbooks Help Teachers in Dealing with Socio-scientific Issues? - A Content Analysis of German Biology Textbooks
Author(s)	René Leubecher, Alexander Bergmann, Maja Funke and Jörg Zabel
Title:	Factors that influence elementary school students' attitudes towards intraspecific biodiversity
Author(s)	Patrícia Pessoa, Sara Aboim, Lisa Afonso, J. Bernardino Lopes and Xana Sá-Pinto
	Paper Session 4C-Outdoor & Environmental Education
	Symposium 2: Environmental Literacy – Appropriate Umbrella for Educational Initiatives
Location:	Building: XΩΔ01, Room: 103
Chair:	Bogner F.X.
Title:	Environmental Attitude's Pivotal Role for Learning
Author(s)	Baierl, T., Kaiser F. X., and Bogner F.X.
Title:	Informal Earth Education: Significant Shifts for Environmental Attitude and Knowledge
Author(s)	Baierl, T., Johnson, B. and Bogner F.X.
Title:	The Impact of Environmental and Sustainability Education on Environmental Literacy of Secondary School Students
Author(s)	Cincera, J., Kroufek, R. and Bogner, F.
12:30-13:45	Lunch
Location:	<i>Restaurant A.Zorbas</i>
13:45-15:30	General Assembly/ Business Meeting
Location:	Building: XΩΔ02, Room: B205
16:00	Tours-Social programme
Time	Thursday, September 1st
09:00-10:30	Parallel Paper Session 5
	Paper Session 5A-Outdoor and Environmental Education
Location:	Building: XΩΔ01, Room: 103
Chair:	Annette Scheersoi
Title:	The impact of animal encounters on zoo visitors' interest in conservation
Author(s)	Jana Schilbert and Annette Scheersoi
Title:	"Environmental citizens in Action": A novel learning intervention grounded on the Education for Environmental Citizenship pedagogical approach
Author(s)	Andreas Ch. Hadjichambis, Demetra Hadjichambi and Yiannis Georgiou

Title:	Measuring psychological distance towards climate change: A new multidimensional scale and its correlates
Author(s)	Alexander Büssing
Title:	Gaining Insights into Biologists' Work Locations and Scientific Activities
Author(s)	Bianca Reinisch, Daniela Mahler, Jasmin Opitz, Moritz Krell and Tom Bielik
	Paper Session 5B-Scientific Thinking, Nature of Science and Argumentation
Location:	Building: XΩΔ01, Room: 108
Chair:	Marcus Grace
Title:	Arguments from Vaccine Hesitancy about COVID-19 in Spain: Epistemic disagreements
Author(s)	María Pilar Jimenez Aleixandre
Title:	Questioning Mandatory Vaccination: A Way To Grasp The Concept Of Herd Immunity?
Author(s)	Olivier Morin and David Favre
Title:	In what ways does the pandemic influenced teaching and interest for contagious - Swedish middle school pupils' reflections in the backdrop of Covid-19?
Author(s)	Anna-Clara Rönner, Anna Jakobsson and Niklas Gericke
Title:	Science teachers' views on how to approach scientific misinformation in schools.
Author(s)	Marcus Grace and Keith Smith
	Paper Session 5C-Scientific Thinking, Nature of Science and Argumentation
Location:	Building: XΩΔ01, Room: 109
Chair:	Andreani Baytelman
Title:	Dialogue between evolution and belief in the Israeli diverse education system: Biology education experts' views
Author(s)	Netta Dagan, Tali Tal and Masha Tsaushu
Title:	Natural History Museum Visitors' Evolution Acceptance
Author(s)	Alexandra Moormann, Anna Beniermann and Daniela Fiedler
Title:	Students' (12-13 years old) ideas about chance and evolution during the game Darwinium during a playful activity
Author(s)	Magali Coupaud, Jérémy Castéra, Miguel Rotenberg, Eric Tortochot, Corinne Jégou, Hélène Cheneval-Armand, Sabrina Marchi, Pascale Brandt-Pomares, Claire Coiffard-Marre and Alice Delsérieys Pedregosa
Title:	Investigating relationships between epistemological beliefs and personal beliefs in biological evolution
Author(s)	Andreani Baytelman, Theonitsa Loizou and Salomi Hadjiconstantinou
10:30-11:00	Coffee Break
Location:	1 st floor balcony
11:00-12:30	Parallel Paper Session 6
	Paper Session 6A-Students' Values, Attitudes and Decision Making
Location:	Building: XΩΔ01, Room: 103

Chair:	Marcus Hammann
Title:	Secondary school students facing fashion consumption and disposal
Author(s)	Isabel Banos-González, Patricia Esteve Guirao, Mercedes Jaén and Maria Ángeles García Fortes
Title:	Factors influencing the intention of students in regard to stem cell donation for leukaemia patients - a comparison of non-intenders and intenders
Author(s)	Julia Holzer and Doris Elster
Title:	Learning about intraspecific biodiversity conservation with "Jack and the Beanstalk"
Author(s)	Joana Rios Da Rocha, Patrícia Pessoa, Lisa Afonso, Xana Sá-Pinto and J. Bernardino Lopes
Title:	Teach consensus, not controversy: Using science communication strategies to affect students' acceptance of evolutionary theory
Author(s)	Isa Marie Korfmacher, Christiane Konnemann and Marcus Hammann
Paper Session 6B-Teaching and Learning with Educational Technology	
Location:	Building: XΩΔ01, Room: 109
Chair:	Gregor Torkar
Title:	Understanding the complexity of the human circulatory system using educational materials with or without augmented reality support
Author(s)	Gregor Torkar, Tanja GregorČič and Andreja Dolenc
Title:	A comprehensive framework for understanding biology teachers' use of digital technology
Author(s)	Daniela Mahler and Julia Arnold
Title:	Biotechnology at school - digital or analog learning environment?
Author(s)	Julia Stich and Claudia Nerdel
Title:	Authentic Biological Dataset-driven Instruction Promotes High-Order Inquiry Thinking
Author(s)	Carmel Bar and Anat Yarden
Paper Session 6C-Outdoor and Environmental Education	
Symposium 3-The Call for Action in Environmental and Sustainability Education	
Location:	Building: XΩΔ01, Room: 108
Chair:	Jelle Boeve-de Pauw
Title:	"Don't we all have a responsibility to act?" – Action competence as driver for young people's climate action
Author(s)	Carola Garrecht, Niklas Gericke, Nina Christenson and Ute Harms
Title:	Biology and science teachers view on critical thinking in sustainability education – The need for a multidisciplinary approach for action competence

Author(s)	Ragnhild Lyngved Staberg, Annette Lykknes, Teresa Berglund, Eli Munkebye, Eldri Scheie, Maren Skjelstad Fredagsvik, Tove Grete Lie, Marthe Lønnum, Sonia Martins Felix, Stephan Daus and Niklas Gericke
Title:	Effective Education for Sustainable Development
Author(s)	Wanda Sass, Eleni Sinakou, Els De Smet, Brigitte Pycke, Miette Plessers, Bea Merckx, Thomas Remerie, Eef Thoen, Sven De Maeyer, Vincent Donche, Peter Van Petegem and Jelle Boeve-de Pauw
12:30-13:45	Lunch
Location:	<i>Restaurant A.Zorbas</i>
13:45-15:30	Parallel Poster Session 2
	Poster Session 2A- Teaching Strategies and Learning Environments
Location:	Building: XΩΔ01, Room: 102
Chair:	Franziska Schisslbauer
Title:	"It is just really a different way to teach science" - Teachers' experience with citizen science
Author(s)	Julia Lorke and Maria Aristeidou
Title:	The effect of adult intervention in the development of science process skills
Author(s)	María Napal Fraile, Lara Vázquez Bienzobas, Irantzu Uriz Doray and Isabel Zudaire
Title:	The impact of lockdown on students' knowledge of evolution
Author(s)	Jelka Strgar
Title:	Explaining diversity – Educating about race: A study with biology student teachers
Author(s)	Franziska Schisslbauer and Arne Dittmer
Title:	A Systematic Review on the Use of Narrative Methods in Biology Education
Author(s)	Julia Zdunek and Jörg Zabel
Title:	Development of preservice biology teachers' PCK: Quantitative and qualitative analyses
Author(s)	Denise Bock, Daniela Mahler and Ute Harms
Title:	The role of study buddies in promoting interest in biodiversity and species literacy
Author(s)	Mario Stehle, Jonathan Hense and Annette Scheersoij
Title:	Implementation of biotechnology topics into School Curriculum: findings of a case study on teacher training courses
Author(s)	Sara Großbruchhaus, Patricia Schöppner and Claudia Nerdel
Title:	Suggestion for biology classes using the poem The Baptism at the Savica
Author(s)	Andrej Šorgo, Tilen Kos, Nina Rupar, Sara Senčar, Sanja Zadavec and Tadej Zorko
	Poster Session 2B-Scientific Thinking, Nature of Science and Argumentation
Location:	Building: XΩΔ01, Room: 104
Chair:	Katrin Vaino

Title:	Change of Understanding of Nature of Science of Pupils of Secondary Classes of Scientific Inquiry in School Garden as a Learning Place
Author(s)	Torsten Kreher
Title:	“Post-truth” challenges and associated science education responses
Author(s)	Katrin Vaino, Anastasiya Astapova, Hans Orru, Konstantinos Korfiatis, Ana Valdmann and Oleg Popov
Title:	Students’ explanations in model-based abductive reasoning about co-evolutionary phenomena
Author(s)	Johanna Penzlin, Dirk Krüger and Annette Upmeier zu Belzen
Title:	Potential of partly structured group-based negotiation on socioscientific issues to initiate more meaningful and deeper interaction
Author(s)	Maria Jafari, Maren Koberstein-Schwarz, Christina Priert, Florian Böttcher, René Leubecher and Anke Meisert
Title:	Giftedness in biology within the Cattell-Horn-Carroll theory – Basis for the development of a screening tool to identify gifted students in biology
Author(s)	Colin Peperkorn and Claas Wegner
Title:	Preservice Elementary Teacher’s System thinking when Proposing Actions to Prevent Pandemics as COVID-19
Author(s)	Araitz Uskola and Blanca Puig
Title:	Language aspects in teaching biomedical subjects
Author(s)	Alesia Sharun and Tetiana Krushynska
Title:	Medical student’s prospective reflection on studying microbiology
Author(s)	Tetiana Krushynska, Alesia Sharun, Iryna Zhernosekova, Iryna Stetsenko and Dmytro Stepanykyi
Title:	Conceptualisation of genetic variation as a disciplinary core idea through different levels of schooling
Author(s)	Helen Semilarski, Regina Soobard and Miia Rannikmäe
15:30-16:00	Coffee Break
Location:	1 st floor balcony
16:00-17:30	Parallel Paper Session 7
	Paper Session 7A-Teaching Strategies and Learning Environments
Location:	Building: XΩΔ01, Room: 109
Chair:	Lina Varg
Title:	Intentions, plans and teaching practices in upper primary school
Author(s)	Lina Varg
Title:	Increasing student involvement with ecological dilemmas through a SSIBL-based photo/video project

Author(s)	Rik Kooke and Micha Ummels
Title:	Educational escape rooms: Exploring the use of engaging problem-solving learning activities in science education
Author(s)	Georgios Villias and Mark Winterbottom
Title:	Fostering learning on socio-scientific issues with escape games
Author(s)	Alice Veldkamp, Johanna Rebecca Niese, Martijn Heuvelmans, Marie-Christine P.J. Knippels and Wouter R. van Joolingen
	Paper Session 7B-Students' Conceptions and Conceptual Change
Location:	Building: XΩΔ01, Room: 103
Chair:	Isabel Zudaire
Title:	No error but not a good answer: assessing progressions towards the biology paradigm
Author(s)	Francois Lombard, Camille Larpin, Marie Sudries, Séverine Perron and Laura Weiss
Title:	Bottom-up and top-down effects on the visual perception of data supporting the Balance of Nature or the Flux of Nature metaphor
Author(s)	Sabine Meister and Annette Upmeier zu Belzen
Title:	Content analysis of grade 12 students' conceptual understanding of core concepts in biology
Author(s)	Helin Semilarski and Anne Laius
Title:	Who do i look like more, mom or dad? An exploratory survey about young children's ideas about variation of traits
Author(s)	Isabel Zudaire, María Napal, Irantzu Uriz and G. Enrique Ayuso
	Paper Session 7C-Students' Conceptions and Conceptual Change
Location:	Building: XΩΔ01, Room: 108
Chair:	Georgios Ampatzidis
Title:	Students' misconceptions about respiratory processes using students' animations
Author(s)	Ana Valdmann and Hedy Suurmets
Title:	Friends or foes? Microorganisms in Greek school textbooks
Author(s)	Georgios Ampatzidis and Anastasia Armeni
Title:	Do bacteria really exist? Learning about micro-organisms in primary school
Author(s)	Zélia Anastácio and Catarina Gonçalves
Title:	Investigating how students move between different levels of biological organization when interpreting epigenetic representations
Author(s)	Annika Thyberg, Konrad Schönborn and Niklas Gericke
19:30	Conference Dinner-Social Event
Location:	Vintage Wine Bar & Bistro
Time	Friday, September 2nd
09:00-10:00	Keynote 2

Title:	Using Physical and Virtual labs for Experimentation in STE(A)M Education: From Theory and Research to Practice
Speaker:	Zacharias C. Zacharia
Location:	Building: XΩΔ02, Room: B205
Chair:	Marianna Kalaitzidaki
10:00-10:30	Coffee Break
Location:	1 st floor balcony
10:30-12:30	Parallel Paper Session 8
	Paper Session 8A- Students' conceptions and conceptual change; Students' Interests and Motivation
Location:	Building: XΩΔ01, Room: 108
Chair:	Andreas Ch. Hadjichambis
Title:	Biology teachers' self-efficacy and ability to diagnose and deal with student conceptions
Author(s)	Tim Hartelt, Helge Martens and Nina Minkley
Title:	What is "Environmental Citizenship"? A systematic review of the literature on teachers' perceptions
Author(s)	Yiannis Georgiou, Andreas Ch. Hadjichambis and Demetra Hadjichambi
Title:	Representations of gene models in Greek educators' conceptions: preliminary findings
Author(s)	Despoina Tsopoglou-Gkina and Penelope Papadopoulou
Title:	Connections of interest - Effects of interdisciplinary education on interest development in biology and PE
Author(s)	Niklas Kramer and Claas Wegner
Title:	The influence of incremental scaffolds during experimentation on the students' motivation in biology lessons
Author(s)	Svea Isabel Kleinert and Matthias Wilde
Title:	HPV-vaccinations from an educational perspective
Author(s)	Mats Lundström
	Paper Session 8B-Scientific Thinking, Nature of Science and Argumentation
Location:	Building: XΩΔ01, Room: 103
Chair:	Clas Olander
Title:	It's all about the competencies – Identifying and promoting giftedness in the natural sciences
Author(s)	Maria Sophie Schäfers and Claas Wegner
Title:	How do high school students and trainee teachers engage with contemporary biological research?
Author(s)	Ralph Levinson, Konstantinos Korfiatis and Stephen Price
Title:	Students meaning-making of a representation of the greenhouse effect - 'It is an easy representation, if you understand it'
Author(s)	Clas Olander and Johan Nelson

Title:	Use of external representations to support biological modelling
Author(s)	Benjamin Stöger and Claudia Nerdel
Title:	A short intervention that promotes the abstract reasoning scheme improves seventh graders' achievements in the topic of the cell
Author(s)	Reuven Babai and Wisam Bishara
Title:	Using student-created core idea maps to promote meaningful learning in science
Author(s)	Helen Semilarski, Regina Soobard and Miia Rannikmäe
	Paper Session 8C-Outdoor and Environmental Education
	Symposium 4: Revisiting Plant Blindness in Biology Educational Contexts
Location:	Building: XΩΔ01, Room: 109
Chair:	Penelope Papadopoulou
Title:	Investigating plant blindness: methodologies, challenges and possibilities
Author(s)	Irma Brkovic, Eva Nyberg and Dawn Sanders
Title:	Plant blindness intensity throughout the school and university years: a cross-age study
Author(s)	Alexandros Amprazis and Penelope Papadopoulou
Title:	How do plants obtain energy? A phenomenographic and pictorial analysis of upper secondary students' conceptions
Author(s)	Oier Pedrera, Oihana Barrutia and José Ramón Díez
Title:	Adult learners' conceptions on plant nutrition and ecosystem services provided
Author(s)	Olga Mayoral, Ana Ruiz and Tatiana Pina
Title:	Teaching species identification to pre-service teachers in distance field education
Author(s)	Arja Kaasinen and Anttoni Kervinen
Title:	Promoting students' interest in plants
Author(s)	Amélie Tessartz and Annette Scheersoij
12:30-13:00	Closing Session
Location:	Building: XΩΔ01, Room: 109
13:00	Lunch
Location	<i>Restaurant A.Zorbas</i>