

# **"Future teachers and (education for) sustainable development"**

**Future forward Summit on Sustainable Higher Education, 17 - 19 October 2018**

**'Each of us can make a difference, together we can make change.'**



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## Outline:



1. Research on future teachers and SD
2. My experience in teaching future teachers on ESD
3. Who can change things?



# **1. Research on future teachers and SD**







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# Introduction

- **Installation Research Projects: Formal Education in Service of Sustainable Development (forOR), Croatian Science Foundation**
- **The fundamental research question:**
  - 1. To what extent does the formal education system in Croatia contribute to the development of sustainability citizens and**
  - 2. what kind of a vision of education for sustainable development is forecast in 2030?**
- **In the context of the formal education system, this research project focuses on levels - secondary, post-secondary and adult education.**



# Sustainable citizenship

- The idea of sustainability has been going through an evolutionary path of importance in the context of educational policies and practices, while the *construct of sustainable citizenship* has been gradually replacing the well-known constructs of ecological and socially responsible and active citizenship.
- According to the UNESCO Guidelines (2015, 2017), the citizens of sustainability *ponder the influence of their own behavior regarding the ecological, social, political and economic aspects of the world*.
- They are critical about their own way of life, and ought to possess the competencies which enable creative, adaptive and cooperative action by understanding the complexity of the world and civic engagement needed to foster positive changes.



**Although education for sustainable development is a part of the formal education, studies point to its limitations—it wields positive influence on students' knowledge, but not on their attitudes and behavior.**

**There is no data on the extent to which formal education in Croatia contributes to the development of citizens of sustainability, so our project aims to**

- 1. identify the determinants and representation of citizenship of sustainability in formal education,**
- 2. explore competencies of (future) teachers needed to integrate sustainable development in their classes, and**
- 3. make their typology according to their willingness to introduce changes in their teaching.**

**Based on research results, a scenario for the Education for Sustainable Development in Croatia 2030 will be developed.**



# **Sustainable citizenship** (Wals, 2015; Wals i Lenglet, 2016)

- **There is a consensus among experts in the field that sustainability citizens must possess *certain key competencies that enable them to constructively and responsibly act in today's world.***
- **Sustainability competencies represent what a sustainability citizen needs to constructively and successfully deal with the complex challenges of today:**
  - 1. the thinking skills and the knowledge needed for a better understanding of sustainable development goals and challenges in achieving them (*cognitive domain*),**
  - 2. social skills that enable them to cooperate, negotiate and communicate for the purpose of promoting sustainable development goals, self-reflection abilities, values, attitudes and motivation for sustainable development (*socio-emotional domain*),**
  - 3. and the ability to act accordingly (*behavioral domain*).**





- **Teachers should adopt the competences related to the ability to help students/formal education program attendants develop sustainability competences through a number of innovative learning and teaching practices.**
- **Within the aforementioned models, teachers are not only seen as professionals, but as individuals with social responsibility and as models of learning with a public education function, which requires them to be highly qualified (Bertschy et al., 2013).**
- Istraživanja sustavno potvrđuju da implementacija održivog razvoja na svim razinama formalnog obrazovanja predstavlja podosta velik izazov učiteljima i nastavnicima, budući da zahtjeva specifična znanja i vještine (Borg, Gericke, Höglund i Bergman, 2014; Burmeister, Schmidt-Jacob i Eilk, 2013; Jickling i Wals, 2007; Summers, Corney i Childs, 2004; Uitto i Saloranta, 2017), a oni se rijetko osjećaju kompetentnima poučavati održivi razvoj (Borg, Gericke, Höglund i Bergman, 2012).



# Research findings

Rotated Component Matrix<sup>a</sup>

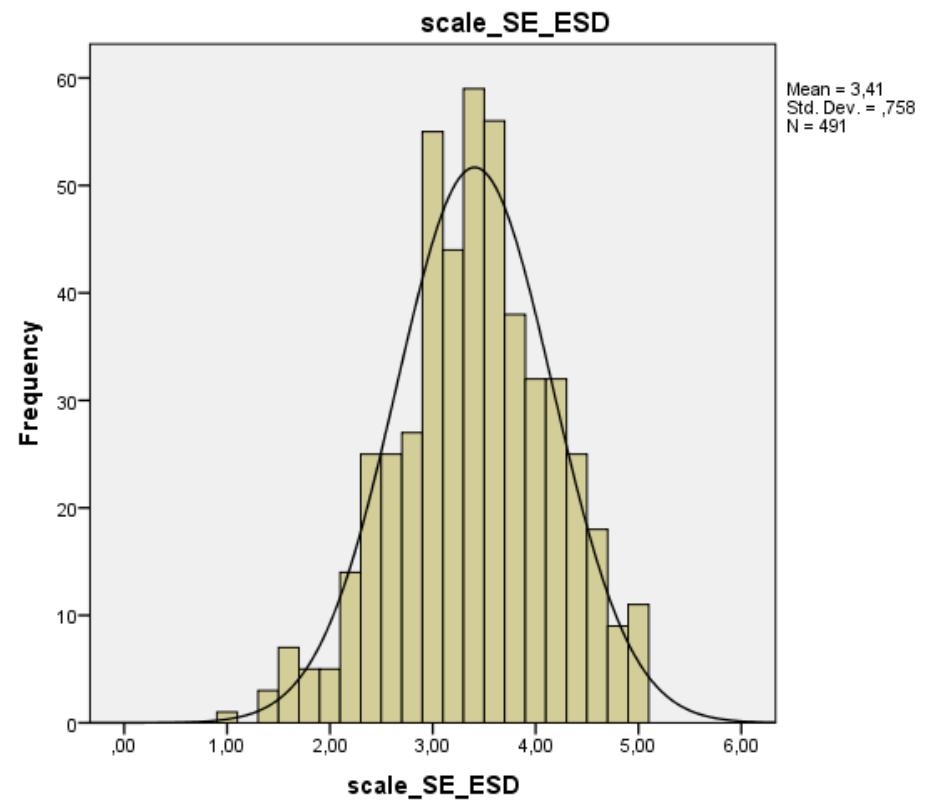
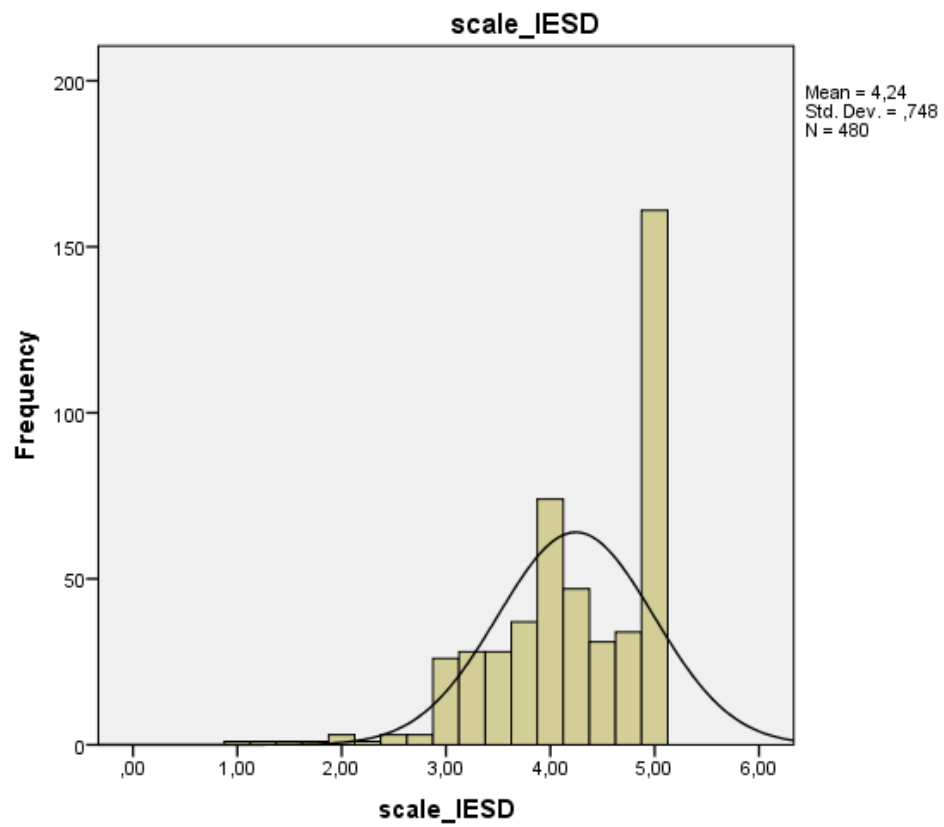
	Component	
	1	2
I_2 It is important that primary/secondary schools promote education for the sustainable development	,896	
I_1 It is very important to educate school students about sustainable development from an early age	,880	
I_3 It is important to me to include education for sustainable development in my future work.	,841	
I_4 It is important to include education for sustainable development in teacher education	,832	
SE_4 I am confident that I can prepare accurate teaching modules about sustainable development		,893
SE_5 I am confident and able to include education about sustainable development in my teaching		,847
SE_3 I have skills and knowledge that would allow me to educate students about sustainable development		,833
SE_2 As a teacher I can play an important role in solving problems of sustainable development through teaching	,456	,518
SE_1 I cannot include education for the sustainable development in my teaching because it needs to be taught by specially trained teachers		-,470

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.











## **2. My experience in teaching course** ***Education and sustainable development*** **to future teachers**



# **3. Who can change things?**

**<https://www.endlich-wachstum.de/>**

**First question:**

**“What options are available to you/people in this field of action if you want to change something?”**

- 1. What approach is taken by the actors in question?**
- 2. What do they do as politicians/businesspeople/etc. to change something on a small or a large scale in their field?**

**a) basic forms of action**

**b) concrete examples.**

**time limit: approx. 10 min. moderation cards to write answers in summarized form**



**Second question:**

**“From your field of action:  
how can you influence the other actors?”**

- **consider how your field of action can exert influence on the others to promote social change.**
- **The answers are written on the paper arrows as keywords**
- **(time limit: approx. 15 min.).**





- **First, the group which worked at the individual level presents the possibilities for action written on its moderation cards and places them in the circle, followed by the other groups.**
- **Once all the cards have been placed in the circles, everyone has an opportunity to add further possibilities for action.**
- **In the second phase, the groups present their influence arrows and position them in the diagram.**





**Thank you for your attention!**

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