



**SOCIAL RESPONSIBILITY AT THE UNIVERSITY:  
REFLECTIONS ON A SERVICE-LEARNING COLLABORATION**

**(in English)**

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Penn State University and the University of Split have been collaborating in service-learning since 2018, when the latter sought assistance from Penn State in learning how to establish and implement a Center for Service-Learning. A relationship between the two universities endures as both institutions continue to collaborate on Service-Learning best practices and projects.

The purpose of this symposium is to share and reflect upon this project's implementation, its expectations and outcomes, and the footprint it created for the community partners. This symposium will address at least the following SDGs: 3, 4, 8, 9, 10, 11, 16. Co-presenters: Donna Chambers, Belén Rodríguez Mourelo, Penn State University and Lana Ugrcic, University of Split (Also students Esmeralda Rivera, Trent Weister, Tomislav Munitic and Ana-Marija Ivcevic)

Chambers, Rodríguez-Mourelo and Ugrcic will present on how service-learning grew at both of their institutions and describe the lessons learned. Chambers and Rodríguez-Mourelo will present how the Center for Academic Community Engagement and the Student Engagement Network exemplifies the implementation of SDGs in service-learning projects and will bring two students from PSU to reflect on their service-learning experience. Ugrcic, the project manager of the Center for Service-Learning at the University of Split will also explain how the SDGs are integrated into their service-learning projects and will bring two students from the University of Split as well.

Presenters from Penn State University and the University of Split will share their experience of implementing the service-learning program and projects in collaboration with five different Non-Governmental Organizations in Croatia and the United States. They will discuss the methods used to meet the specific needs of each organization and reflect upon the challenges and rewards of the program. Presenters will reflect on how to transform this initiative into sustainable development goals as defined by the UN in their 2015 report, which are mutually beneficial to both community and university.

The symposium will be organized in the following manner. Faculty will speak first about the Centers for Service-learning at both institutions, and how they address the SDGs. Students from the two institutions will discuss how their projects addressed the SDGs and will reflect upon their experience. The goal of this panel is to reflect on the social responsibility of the university in institutionalizing service-learning and will specifically address how it serves to support SDGs.

The presenters will also share their vision of linking international service-learning projects that create platforms for students and professors to share their research, experiences, and best



practices. They will enumerate the logistical and funding efforts undertaken by both Universities to ensure that this collaboration continues proving the importance of the university role in social responsibility. The presenters envision the symposium as an interactive space for questions and answers and exchange of ideas among participants and audience.

## REFLECTIONS ON A SERVICE-LEARNING COLLABORATION

*Donna Chambers, Penn State University, Belén Rodríguez-Mourelo, Penn State University, USA, [brm4@psu.edu](mailto:brm4@psu.edu), Lana Ugrcic, University of Split, EFST, Croatia, [lugrcic@efst](mailto:lugrcic@efst)*

### **Abstract**

Donna Chambers, Belén Rodríguez-Mourelo and Lana Ugrcic have collaborated in the creation and implementation of a Service-Learning Center at the University of Split, following the model of the Center for Academic Community Engagement at Penn State University. They will present how service-learning grew at both of their institutions and describe the lessons learned in collaborating and implementing programs, learning objectives in various courses, the community collaboration and student and partners' reflection.

Chambers and Rodriguez Mourelo will present the way service-learning is conducted at Penn State University through the Center for Academic Community Engagement, CACE, and the workshops and interaction provided by CACE to the University of Split and subsequent collaboration. Students Esmeralda Rivera and Trent Weister will discuss how they implemented two different projects in the community related to equitable education (at John Paul II Center for intellectual and developmental disabilities) and sustainability (at the City of Reading Public Works).

Ugrcic will present the way Service-Learning is formalized and implemented in regular curriculum and program of Faculty of Economics, Business and Tourism in Split (EFST). She will present official syllabus and learning outcomes of the course, its development and all challenges of its implementation in several NGOs with different missions. Students Tomislav Munitic and Ana-Marija Ivcevic will present SL implementation in first year at EFST through case study analysis of NGOs Our Children (children with disabilities) and Heart (persons with cerebral palsy).

**Key words:** institutionalization, sustainability, community engagement, equitable and inclusive education, international collaboration

**Thematic Line 3** - *Institutionalization processes of the SeL in the universities with SDGs criteria*

**SDGs:** These presentations as well as the work of the Centers at both universities are directly linked to the SDGs, especially the following: 10,11, 16



10 (Reduce inequality within and among countries)

11 (Make cities and human settlements inclusive, safe, resilient and sustainable)

16 (Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels)

## **A MICROFLUIDIC DEVICE FOR RAPID ANTIMICROBIAL SUSCEPTIBILITY TESTING FOR SEPSIS DIAGNOSTICS**

*Britney Forsyth, Penn State University, USA, btf5096@psu.ed*

### **Abstract**

I am a student in Microbiology.

Sepsis occurs when the immune system responds to an infection in the bloodstream; this often leads to organ damage, organ failure, and death. Successful treatment of sepsis relies on rapid and precise diagnosis of bloodstream bacterial infections. Traditional sepsis diagnosis, such as cell-cultures or biomarkers, prove inefficient and ineffective; some tests take an upwards of two weeks, at which point, the death or reduced cognitive abilities may occur. Additionally, a broad range of antibiotic prescriptions increase patients' resistance to other drugs, making them more susceptible to other infections.

Emerging technologies, such as microfluidic devices, biosensors, and lab-on-chips, however, offer huge potential for transforming diagnosis of sepsis-based infections. Still, these approaches have not been optimized for bacteria that cause sepsis; most techniques do not work well for characterization of low concentrations of bacteria, and concentrations of bacteria during septic conditions range from 1 CFU/ml to 10 CFU/ml.

This project, in specific, seeks to improve blood separation protocols and design microfluidic devices that can isolate and characterize bacteria at sepsis-level concentrations with bacteria species, such as *Escherichia coli* and *Staphylococcus aureus*. This approach has also not yet been implemented in a clinical setting but also hopes to reduce diagnostic protocols from weeks to hours. Doing so would ensure good health and well-being for the general population. Additionally, because these microfluidic devices are low-cost, systemic inequalities experienced by low-income families would diminish, in turn, improving access and quality of healthcare for all people.

**Key words:** community engagement, good health and well- being

**Thematic Line 3** - *Institutionalization processes of the SeL in the universities with SDGs criteria*

And **Thematic line 2** - *Research on SDG in Service-Learning in Higher Education/Research on Service-Learning supported by the SDGs*

**SDGs:** 3 Ensure healthy lives and promote well-being for at all ages

## HELPING OTHER THROUGH UNDERSTANDING HRV

*Arizona Shreck, Penn State University, USA*

### **Abstract**

I am a student in Kinesiology.

The constant variation in milliseconds between the heartbeats is known as heart rate variability (HRV). Some situations result in an increase in variation (high HRV), while others cause the intervals between beats to stay more constant (low HRV). These subtle variations reflect the heart's ability to respond to different situations. HRV can react to stress and/or illness —providing useful insights into an individual's stress levels, recovery status, and general well-being. A higher HRV is an indicator of general physical fitness and sufficient recovery, whereas a lower HRV is an indicator of stress, illness, and overtraining. The novel Oura ring, a wearable device, integrates daily physical activity and nocturnal cardiovascular measurements. An individual's nightly average HRV compared to their baseline, and whether it trends up or down, can help an individual know how to approach their day. For example, comparing the daytime check-ins to their general baseline can give them insights into how certain activities, like meditation or exercise, affect their system.

I wore the Oura ring for approximately two months to gather my physical activity and nocturnal cardiovascular measurements. Every morning I would check the Oura ring's digital application on my smartphone to gain insight on my quality of sleep. The information provided would help me determine if I should be more physically active or restful throughout my day. On the days that the Oura ring measured a low HRV throughout my sleep, I would need to incorporate more rest to help my body recover from stressful stimuli. On the days that the Oura ring measured a high HRV, I was able to incorporate more physical activity into my day to optimize my body's health. As a student athlete, I learned to incorporate a twenty-to-thirty-minute nap into my daily routine to optimize both my academic and athletic performance. I would like to share my findings with others to support the advocacy for practicing general wellness.

**Key words:** community engagement, good health and well- being

**Thematic Line 3** - *Institutionalization processes of the SeL in the universities with SDGs criteria*

**Thematic line 2** - Research on SDG in Service-Learning in Higher Education/Research on Service-Learning supported by the SDGs

**SDGs:** 3 Ensure healthy lives and promote well-being for all at all ages

## SL PROJECT IN NGO

*Tomislav Munitic, University of Split, EFST, Croatia, tmunit00@live.efst.hr*

### **Abstract**

This presentation will include analysis and improvement of organizational mission, vision and goals, operational plan and SL outcomes. I will review all SL activities the student team from EFST has done in Heart, a community association and NGO. I will talk about these project activities:

1. activity: Preparatory activities - getting to know the members and employees of the NGO Heart;
2. activity: Integrated marketing communication - creating a marketing communication manual for the NGO, assisting in running social media and the web, writing and coordinating promotional announcements for various activities of the NGO;
3. activity: Cerebral Palsy Day - designing a marketing plan and graphic solutions for CP day;
4. activity: Coordination and volunteer activities - team meetings, meetings with mentor and coordinator and assisting at the stands for Easter and on the day of cerebral palsy.

I will also reflect on my team's service-learning experience in the NGO Heart, about what impact it had on the students personal and professional development and also the experience and impact for the NGO. I will include learning outcomes such as: project management, teamwork, the work of the NGO (insight into how nonprofits in Croatia work and what obstacles they face), and the obstacles to the work of Disability Associations, etc.

**Key words:** community engagement, equitable and inclusive education

**Thematic Line 3** - *Institutionalization processes of the SeL in the universities with SDGs criteria*

**SDGs:** 3 (Ensure healthy lives and promote well-being for all at all ages)

4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all)

## SL in NGO OUR CHILDREN

*Ana-Marija Ivcevic, University of Split, EFST, Croatia, aivcev00@live.efst.hr*

### **Abstract**

This presentation will include analysis and improvement of organizational mission, vision and goals, operational plan and SL outcomes. I will review all SL activities the student team from EFST has done in Our Children. Specifically, I will talk about:

- Organization of millennial photograph for World Autism Day and raising awareness about it and students challenges on their way. The photograph was made in cooperation with elementary school Ostrog.

- Organization and promotion of panel discussion "Inclusion is not an illusion" where participants discussed about inclusion of children with special needs in the regular education system. There were two speakers prof. Sanja Cagalj, principal of elementary school Spinut and dr.sc. Sanja Bilac teacher and adviser who shared their experiences and good case practices.

- Participation in social hackathon "Hack4Split" where students with the help of programmers developed speech therapy game (for children to learn how to pronounce letters, words and sentences, learn colors, animals, numbers, etc.) and updated the website of the NGO.

I will conclude the presentation with reflection on the whole SL process, what impact it had on the students personal and professional development and ultimately the impact it had on the NGO and community.

**Key words:** community engagement, equitable and inclusive education

**Thematic Line 3** - *Institutionalization processes of the SeL in the universities with SDGs criteria*

**SDGs:** 3 (Ensure healthy lives and promote well-being for all at all ages)

4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all)