WINNOVATORS

Boosting entrepreneurial and STEAM capacity

Winnovators eTraining and Coordination

WINNOVATORS project

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WINNOVATORS

"Boosting young women entrepreneurial spirit and skills to become the Women INNOVATORS of the future"

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Table 1 Document Factsheet

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PROJECT PARTNERS

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https://www.tlu.ee/en

UNIVERZA V LJUBLJANI | University of Ljubljana (Slovenia)

https://www.uni-lj.si/university/

BADEN | Balkan Distance Education Network (Serbia)

http://badennet.net/

VITECO Srl | Vitale Tecnologie Comunicazione (Italy)

https://vitecoelearning.eu/en/

ICEBERG Consulting Srl (Romania)

https://www.iceberg.ro/

UDRUZENJE POSLOVNIH ZENA SRBIJE | Association of Business Women in Serbia (Serbia)

http://www.poslovnezene.org.rs/

SINERGIE Sinergie Società Consortile a Responsabilità Limitata (Italy)

https://www.sinergie-italia.com/

PUBLISHABLE SUMMARY

The report covers WINnovators etraining and coordination procedures in Estonia, Serbia, and Slovenia during the 2023 1st piloting phase. WINnovators training practices and coordination are capacity development methods for HEIs, OIEs, and local communities that target young women in need in rural areas to collaborate, learn, and develop innovative job ideas in teamwork with HEI students and OIE experts.

The report discusses how to engage HEi students and young rural women to learn WINnovators competencies and build capacity through e-learning tools. Module 1. Community STEM and STEAM entrepreneurship challenges.

The challenges are team-based learning modules that help young rural women devise STEM/STEAM, sustainability innovation, and entrepreneurial ideas. Due to young women, students, and local mentors' expertise, Estonia, Serbia, and Slovenia provide varied challenges.

The report forms the basis of WINnovators e-learning Module 2's interaction guidelines for capacity building training in WINnovator space and locally. These module contents is prepared based on project year 2 Pilots and tested in project year 3.

KEY MESSAGES:

- WINnovators etraining and coordination procedures are realized in Estonia, Serbia and Slovenia.
- Engaging HEi students and young rural women to learn WINnovators competencies
- Engagement rules for WINnovator capacity building training in WINnovator space and locally.

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INTRODUCTION

The document describes Estonia, Serbia, and Slovenia's pilot programs. The Winnovators' program's planning, implementation, and evaluation will also be examined to determine how it promotes cross-university and local ecosystem capacity development in sustainability, digital transformation, STEM/STEAM, and entrepreneurship:

- Create empowering organizational structures that boost target group involvement and leadership.
- Improve target groups' problem-solving skills, including root cause analysis and resource mobilization.
- Improve community and organizational relationships.
- Give target groups more control over activity decisions and activities.

The following points will be discussed to examine these issues.

- Strategies to attract and engage young women.
- Targeted student engagement strategies.
- Strategies to promote student-young woman collaboration, including student tasks
- Higher education institution (HEI) mentors and teachers.
- Coordination results: learning outcomes + project results
- Lessons from piloting

ETRAINING IN ESTONIA

In Estonia, municipal youth workers were used to engage disadvantaged young women. Youth workers who had graduated from the youth employment program or hosted Tallinn University interns in three rural Estonian regions were addressed. The local setting, everyday life, interests, and needs of young adults were mapped using HEI mentor.

In the pilot phase, local partner participation got more complicated. This complexity developed when one partner left the project owing to field staff changes and budget cuts. In another region, pre-pilot volunteers dropped out owing to personal life changes. It was harder than expected to find interested young adults quickly. The third partner struggled to recruit young adults from project information alone. Recognizing that many TLU youth work students are involved in local rural youth centers, they were encouraged to reach out to potential participants in their communities or through their professional and personal networks to find suitable project participants.

In a training to prepare second-year youth workers for project work, they participated in the Winnovator project. Students learned how to support and help children implement initiatives. The course asked: "How to engage young adults in an e-learning environment through project work?" and used Problem Based Learning (PBL). Students used project management skills to create youth initiatives for young adults, matching professional youth workers' real-world duties. Students addressed young adults to empower them through project work. This required analyzing the local social needs and interests of young people and building a tangible project proposal with young women based on a Winnovators team-based learning module challenge.

Five teams of students worked with young women to accomplish the challenge module. They brainstormed project ideas, found funding sources, and wrote project proposals for each endeavor. Three sustainability initiatives sought to raise awareness of consumption behavior and mobilize the community to combat overconsumption. An initiative to create a digital learning community for rural youth focused on team leadership, community participation, and event organizing. Additionally, another effort used comics, including digital ones, to raise youth understanding of social issues. All of these projects sought to empower young adults as community leaders. Funding programs approved them, suggesting their possibility for implementation if young people or students had time to pursue them.

Youth work students led collaboration and learning in the WINnovator project to boost students' professional agency. A teacher/HEI mentor met with students monthly to provide assistance, but she did not interact with the young women in the project. These monthly 2-x-3-hour workshops addressed student difficulties and questions when working with young adults. These sessions also included project writing and management. The study meetings addressed topics and tools/methods that supported team development, project idea or proposal writing, etc., such as team canvases to get to know each other and map initiative interests and resources. This method helped students engage target groups and develop project-work entrepreneurial skills.

Young women were equally involved in efficient teams with frequent meetings and shared duties. When early team building and workflow creation failed, students took more responsibility for the final results, and young women often became consultants or withdrew from the process. Five foreign exchange students and 13 Estonian youth work students participated in the Winnovators pilot program. The exchange students used the site and solved a challenge together. They had trouble involving local youth owing to language problems. Eight of 12 young women joined the Estonian team

and started Winnovators platform group work tasks. Unfortunately, the remaining participants dropped out early in the program, including two young moms who had family obligations.

Teamwork with the local community was easier when the student was already there. This gave them insights on local conditions, potential partnership partners, and financial sources. One of the two local youth workers communicated with students and the university mentor. This youth worker learned the Winnovators platform and recruited new participants when the first ones dropped out. Other youth workers mostly mediated contact (for one participant).

Learning outcomes include project writing skills like needs analysis, goal setting, funding, action plan and resource planning, and project management skills like risk analysis, team building, and seamless cooperation. Project writing improved collaboration and entrepreneurial daring. Students and young women emphasized the network and success working with strangers.

The study course's outcomes, including student feedback, showed that the pedagogical approach was useful because it allowed students to learn through practical experience supported by reflection to develop their professional agency and identity.

The self-driven PBL method enhanced youth worker students' professional agency because it aligned with non-formal learning and youth work values. Leaving primary responsibility to students lessened the Higher Education Institution (HEI)'s effect on learning, which was a concern. In order to mitigate learning hurdles and collaboration breakdowns, it is important to prioritize continuing assistance for the learning process, particularly between study sessions. This support should include monitoring and resolving program issues.

ETRAINING IN SERBIA

The pilot program in Serbia began in early April 2023 and involved 15 young entrepreneurs who were introduced to the WINnovators initiative by the Association of Business Women in Serbia and BADEN teachers' connections with Serbian entrepreneur organizations. Students were initially uninterested in the programme due to a lack of clear incentives. To remedy this issue, female students were offered WINnovators student internships and extra credit for faculty assessments. Young women and students attended dedicated sessions to learn about WINnovators and its courses. Female students and young women entrepreneurs reviewed course content and took exams the next month.

An online gathering in mid-May produced 15 teams with a young woman and a female student. Teams received spaces on WINnovators. Two BADEN teachers and one ABW member mentored five teams. Over two months, mentors met with teams online. These meetings monitored the teams' progress and helped them overcome hurdles.

All teams had to create a detailed business plan for the entrepreneur's existing or new business. Twelve of the 15 teams stayed active, while three young entrepreneurs abandoned their project ideas, leaving students looking for new young women entrepreneurs. Notably, seven teams completed the first task. Interestingly, the young woman entrepreneur from one team ("Healer Hands") used her business plan to request for governmental support. She was able to buy supplies for her new business after winning the Winnovator challenge with her business plan. Seeing the potential, additional teams are interested in using their collaborative business plan to seek investment.

in the second challenge, "Website Creation," and the third, "Utilizing Technologies for Business Marketing Presentations." However, challenges two and three were postponed due to the first

challenge's business plan development period and participants' lack of training time. The priority of their personal, professional, and other obligations limits them. Given these issues, the Serbian team of BADEN and the Association of firm Women recommended an extension of the project deadlines, realizing that starting a firm for young female entrepreneurs is difficult and time-consuming. A significant 40% of female entrepreneurs want to continue participating in the WINnovators project after the pilot term. Future assistance and participation for these women entrepreneurs is the goal of this proposal.

ETRAINING IN SLOVENIA

The Slovenian Winnovators project pilot began with an online conference via Zoom to create accounts and familiarize members with the platform's design. The conference included 18 vulnerable women and two Ljubljana University Faculty of Education student groups. The first group contained 6 computer science students and the second 16 art education students. The gathering also included Chamber of Agriculture and Forestry, Rural Youth Association, and Slovenian Employment Service representatives. These project partners connected disadvantaged women and promoted the project through their communication channels. Promotion of the Winnovators education program generated enough interest to admit 20 candidates, double the budgeted number. A waiting list of 13 people was created as more applicants expressed interest.

Challenges had two parts. The first phase introduced participants to the tools and essential skills, while the second involved project creation. Participants were initially grouped by challenge. For each task, the "Slovenia" team created a Winnovators online subteam for information sharing, troubleshooting, collaboration, and assistance.

Challenge tasks were assigned every Monday for the following week. The goal was to increase their educational involvement over independent work. Increasing task difficulty while maintaining a sustainable weekly burden was a priority. Participants were encouraged to offer workload and task complexity ratings. The online platform fostered collaboration, whether seeking help, exchanging ideas, or having informal chats. Tasks for the following week were based on participant input.

Most participants chose "Co-creation with Canva" and "Virtual 360 Tour" challenges. Several contestants chose numerous tasks. Women from vulnerable groups worked with students who had joined up for the challenge. Mentors offered weekly feedback for each assignment solution to encourage participation in trainings and prevent disengagement due to lack of desire.

The challenge began with 8 vulnerable women and all University of Ljubljana Faculty of Education students submitting assignments and more vulnerable women signing up for the Winnovators online platform. Active participants dropped after three weeks. Three individuals consistently submitted assignments by the end of the first part. Several initiatives were implemented to re-engage inactive participants, such as weekly Zoom meetings for discussions, issue resolution, and direct guidance from students and mentors with adapted meeting schedules. Despite showing interest in this help, participants did not fully use these sessions after initial excellent attendance. Multiple email reminders and instructions to urge students using Winnovators' chat function or other channels were sent to encourage participation. Many women, especially rural ones, emailed their intention to leave the education program early. A tight deadline was the main cause. They had little time for other activities because they were busy with farm labor.

The second challenge was a project, and a form was created to simplify project planning. This plan requires participants to establish their goals, a detailed execution strategy, a step-by-step explanation of how to achieve project goals, and implementation deadlines. Participants were expected to discuss project items or materials and consider sustainability. This approach encouraged participants to explicitly state their goals and independently create a work plan and deadlines. The idea was to empower them to lead execution with support. Practical examples include generating promotional campaigns, flyers, posters, and logos for a computer repair and used computer equipment restoration company helped with project writing. Following plan definition, participants, students, and mentors worked in smaller groups to fulfill project goals. After several reminders and attempts to understand their reasons, no participants submitted project plans by the deadline. Emails extended the submission date and offered project plan creation support, but participants did not respond or plan. When none of the first participants completed education, outreach was directed at waiting list prospects. Despite initial interest, only two women started training, and only one finished. She chose the "Co-creation with Canva" assignment. Despite being the only participant, she was given a weekly task plan with a shorter first activity. Two weeks into the program, the participant was asked to plan a "Exhibition Opening: The Biodiversity of Our Planet in Photographs." She wanted to motivate people to think about nature's importance and learn how to reduce human impact on the environment to improve our lives. Nature-themed picture collages, a promotional event flyer, a logo, and educational posters were created to promote reducing human effect on nature. Her project partners were computer science and art education students who provided technical and visual support. After the "Co-creation with Canva" challenge was successful, several students worked alone on their projects, creating many high-quality works.

The "Co-creation with Canva" challenge had 24 participants and 17 projects completed. Birthday party planning, alternative music concert organization, dog photography exhibition promotion, outdoor literary reading activities, pottery courses, beauty salon marketing, and textile printing company promotion were notable projects from this challenge. Four contestants in the "Creating Mini-games with Scratch" challenge failed to finish their mini-games to promote honey sales at a tourist farm. Five participants learned Scratch and created interactive animations to raise environmental awareness for the "Designing Simple Interactivities with Scratch" challenge, however they did not finish. The "Virtual 360 Tour" competition involved 17 participants exploring a virtual tour tool for Ljubljana's architectural highlights. But their projects remained unfinished.

Participating in Winnovators platform challenges allowed participants to uncover areas of their lives where they may pursue entrepreneurial ideas with help. They empowered themselves by taking charge of their tasks and achieving their goals. They led, while students and mentors supported them, helping them feel capable and accomplished. Collaboration with students and mentors also created informal bonds that may last after the schooling program.

Although many participants left early, the program helped develop relationships and potential collaborations. Collaborative learning and work fostered participant bonds. Communication and transparency, local environmental benefits, and project plans to support them were strategies. Sharing project results in the media spread instructional content to other organizations and applicants. The Winnovators education project sparked university conversations about connecting students and vulnerable groups to share knowledge and experiences. Systemic curricular modifications, integrating collaboration into important disciplines, and asking other university departments to participate are possible.

The Winnovators project training pilot gave useful information. Despite our expectations and efforts to accommodate more people, the high dropout rate was a major concern. The instructional material and structure were developed in conjunction with organizations that connect us with disadvantaged women to ensure relevance and appeal. Informal chats and survey research showed no education content discontent. Lack of personal interaction may have contributed to drop-out rate in the online mode. Not all assistance, collaboration, and task breakdown efforts worked. The experience showed that rural individuals with seasonal work commitments must consider schooling time.

We'll use the pilot to redesign challenges and improve solutions. Participation statistics show that multimedia editing was more popular than block programming. Thus, the approach comprises adding video editing, technological, and live content streaming hurdles. An in-person pre-program gathering is also being considered to enhance relationships between vulnerable women, students, and mentors.

The schooling program has had great results despite hurdles. Successfully connecting university students with vulnerable women benefits both parties. This experience helped us comprehend disadvantaged communities' needs and concerns, underlining the need for inclusivity and assistance in society. The teaching program also produced many intriguing initiatives that offered new insights on various issues. The educational approach gave participants significant knowledge that we hope will help them in their careers and personal lives. The educational process gave participants essential knowledge that might help them in their careers and personal improvement. The program's greatest benefit is making new acquaintances. Their supportive network is built on shared learning, collaborative projects, and knowledge exchange. This relationship will encourage, support, and share ideas after the program ends.

COORDINATION ACTIVITIES IN WINNOVATORS

The coordination plan is to involve susceptible young women in activities that enhance their abilities to overcome deficiencies in experience, skills, mentors, and partners. The goal is to foster the development of creative business techniques and entrepreneurial concepts. The guidelines promote engagement between young women in rural areas and students in higher education institutions (HEIs) to enhance their collective ability and influence through digital, entrepreneurial endeavors.

The objective is to establish principles for the creation of innovative teaching and learning approaches at higher education institutions (HEIs). These approaches should effectively involve both students and external informal learners, particularly young women in rural communities. The aim is to collectively enhance their capacities and foster the development of STEM/STEAM (Science, Technology, Engineering, Arts, and Mathematics), innovation, sustainability, and entrepreneurship skills.

- Engagement of young women in the Winnovators program during the pilots

Effective Engagement and Supportive Network Building:

Personalized Interaction: Utilize direct, one-on-one engagement and collaborative invitations as the most effective means of involving rural youth effectively.

Supportive Network Formation: Beyond educational goals, foster the creation of a supportive network among participants, ensuring continued encouragement and collaboration opportunities.

Mentorship and Motivation: Create a system to provide weekly feedback, ensuring participant motivation and progress tracking. Mentor guidance addresses challenges promptly and maintains motivation.

Coordination Teamwork and Practical Learning:

Team Formation: Establish teams comprising both young women and students, promoting collaboration and providing a support system.

Practical Collaborative Learning: Encourage teams to collaborate closely to complete challenges - to brainstorm project ideas, identifying funding sources, and preparing proposals, replicating real-world situations.

Customized and Progressive Learning Design:

Personalized Projects: Empowering participants to undertake projects aligned with their personal interests, such as raising environmental awareness, creating business plan, served as a catalyst for increased motivation and a deeper sense of investment in the program.

Structured Progression and Adaptive Content: The structured approach, with clear time limited assignments offers guidance and a sense of advancement. The incremental complexity of tasks ensures that participants could effectively manage their workload, supporting motivated engagement.

- Effective approaches to encouraging collaboration between students and young women.

Interest-Driven Team Formation for Collaborative Synergy:

Grouping Participants by Interest: allowing participants to collaborate on projects aligned with their interests and passions. This adaptability ensured that participants found the collaboration meaningful and personally engaging. Encouraging participants to set objectives, create work plans, and establish deadlines empowered them to assume leadership roles in project execution.

Professional Empowerment Through Problem-Based Learning and Tangible Benefits:

Practical Learning and Incentives:

- Implementing Problem-Based Learning (PBL) in the course design allowed students to work on real-work professional challenges, equipping them with practical professional skills e.g. engaging young adults, mentoring etc.

- Clear incentives like extra credit points and internship opportunities might enhance student participation.

Empowering Target Group:

- Focus on empowering young adults through project work prompted students to identify the specific needs and interests of young individuals in their communities, fostering collaborative efforts toward shared goals.

Adaptability, Flexibility, and Participant-Centric Approach:

Participant-Centric Adaptability: Recognizing the challenges posed by time constraints and participants' existing commitments, providing flexibility in deadlines. enabling to engage in the program at their preferred or personal learning pace.

- Principles to develop new teaching and learning approaches in HEIs to engage students and external informal learners, such as young women in rural communities, to jointly experience and develop collective-level capabilities in STEM/STEAM, innovation, sustainability, and entrepreneurship

Active Collaborative Learning through Real-World Projects:

Collaborative Team Learning: Organize teams comprising both female students and young women to jointly tackle chosen issue/ challenge module. Create circumstances for collaborative teamwork among participants, encourage them to define objectives, create work plans, and set deadlines, allowing them to assume leadership roles in idea/project execution within their team. Use different - hybrid (including in-person interactions) possibilities to support collaboration, discussions, and informal interactions.

Real-World Challenges - Project-Based and/or Problem-Based Learning: Structure the program around project-based and/or problem-based learning methodologies, where participants engage in authentic, real-world challenges. For instance, creating comprehensive business plans to offer practical and relevant learning experiences for aspiring entrepreneurs.

Flexibility, Adaptability, and Continuous Improvement:

Be prepared for unexpected challenges: Anticipate unforeseen obstacles, such as partner withdrawals or changes in participants' circumstances, and have contingency plans in place to address them effectively. Create proactive approaches / networks for identifying and involving new learners in rural areas who may join the program at short notice.

Recognize existing commitments: Understand that young women may have personal and professional commitments that could impact their involvement. Show flexibility by adjusting project deadlines to accommodate these.

Collect feedback for continuous improvement: Regularly gather feedback from participants and students to evaluate and enhance the program's content, format, and effectiveness. Be ready to redesigning program challenges and introducing new topics based on participant interests and feedback.

Encourage regular reflection: Foster a culture of reflection on the learning process and and outcomes among participants and students.

Ongoing Support, Mentorship and Guidance:

Cross-border Mentorship and Assistance: Assign mentors or teachers to the teams, offering regular feedback and support to the teams throughout the program, ensuring they receive continuous monitoring and assistance.Offer guidance on various aspects helping them navigate challenges

encountered during collaboration as well as on specific topic or competences. Mentors are instrumental in addressing motivation issues to maintain consistent engagement to prevent dropout rates.

GAMIFICATION ELEMENTS IN WINNOVATORS PLATFORM

The efficacy of gamification in e-learning systems is well acknowledged in the literature. According to Bouchrika et al. (2021), the use of this technology enhances student engagement and involvement. It also supports e-learning activities, as noted by Alsubhi et al. (2020). Additionally, it facilitates self-regulated learning, as highlighted by Li et al. (2022). Moreover, it increases user motivation and interaction, and has positive social effects, as demonstrated by Saleem et al. (2022). Ultimately, it results in higher satisfaction. Based on these discoveries, we have incorporated an extensive gamification mechanism into the Winnovator Space platform.

The badge system is built upon the Winnovators framework, which is a complete amalgamation of many competency frameworks aimed at fostering active citizenship. This framework outlines five essential competences: 1) Learning to be, 2) Learning to value, 3) Learning to live and work together, 4) Learning to understand and apply, and 5) Learning to empower. Every competency is linked to a distinct open badge. In order to enhance user involvement, the system incorporates gamification components, enabling players to bestow medals upon themselves and others, and showcases transparent leaderboards. Additionally, it features a customized dashboard that showcases all acquired badges and offers a visual depiction of personal advancement and accomplishments.

The result of e-training and coordination is a study that examines several aspects of gamification features in an online platform created as a component of the Winnovators project. This initiative was created to facilitate cooperation between college mentors, students, and vulnerable women's groups, with the objective of enhancing their capabilities and obtaining expertise in digital technologies, entrepreneurship, and sustainability.

The survey was composed of 35 participants hailing from Estonia (6), Serbia (11), and Slovenia (18), who were actively engaged in the pilot phase of the Winnovators educational program. The demographic information was collected using questions that had predetermined response options. Comprehending the nation from where individuals originate is essential for evaluating how distinct cultural and socio-economic contexts from these particular countries impact the participants' involvement and acquisition of knowledge in the program. This is especially pertinent when contemplating the varied obstacles encountered by young women in marginalized demographics across various locations and how these obstacles affect their efforts in achieving sustainability, digital literacy, and entrepreneurial aptitude.

Data was gathered through an online survey conducted via Google Forms and distributed to those who successfully finished the Winnovators training programs. The survey encompassed several areas of inquiry, including: 1) Participants' general perspectives on the utilization of badges as a means of evaluating their overall attitudes towards badges; 2) Exploring the motivational factors behind how badges impact engagement, collaboration, and learning; 3) Examining the process of bestowing badges upon oneself and others, with a particular focus on peer and self-assessment; 4) Gathering opinions on the efficacy of employing leaderboards to monitor progress; 5) Assessing the value of reviewing all earned badges. A combination of qualitative and quantitative questions was employed to achieve a well-rounded data collection process. Participants utilized a five-point Likert scale to indicate their

degree of agreement with each statement. The scale had the following options: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree. Open-ended questions were employed to elicit more comprehensive perspectives on many significant facets of the topic in most cases. Prior to full deployment, the survey underwent a pilot test to ensure its clarity. Our study maintained the anonymity of participants in order to comply with ethical guidelines for research with vulnerable populations. This technique was especially vital due to the delicate nature of data gathering among young women in marginalized populations. In order to adhere to ethical standards, we acquired informed consent from all participants, providing a clear explanation of the study's objectives and the intended use of the collected data. Participants were guaranteed the freedom to discontinue their participation in the survey at any juncture without incurring any repercussions. We employed quantitative methodologies, such as the computation of descriptive statistics, to examine the survey data.

The survey findings indicated that the incorporation of gamification features was usually positively welcomed. The badges efficiently demonstrated the participants' competencies and facilitated the recognition of their skills. Nevertheless, their potential as a means of motivating individuals to engage in learning and participate in activities was not widely acknowledged. Participants acknowledged the chance to bestow badges upon others, but they did not assign significant significance to this practice in terms of enhancing their collaboration and relationships. The technological implementation of the badge awarding system received criticism for being excessively intricate and lacking user-friendliness. The self-awarding of badges received reduced approbation. Participants found this option difficult because they did not have clear criteria for the award and were not accustomed to acknowledging their own excellent traits. However, we strongly feel that promoting introspection, particularly in acknowledging one's own favorable qualities, is quite significant, therefore our intention to retain this element. Our intention is to provide assistance and motivation for participants' metacognitive processes, since we firmly believe that these processes contribute to both cognitive and personal growth. Initially, we were apprehensive about how the competitive nature of the leaderboard may be seen unfavorably. However, the outcomes have demonstrated that the participants were content with the public exhibition of their accomplishments. The Winnovators exhibited a diminished level of approval in contrast to the Change Agents. Nevertheless, they did not perceive the scoreboard as a significant catalyst for their motivation to work and learn, nor did it have an impact on their collaboration and relationships. The badge overview was seen as an effective approach for monitoring achievements and pinpointing areas requiring additional improvement, and it was positively welcomed.

The research findings regarding the gamification features in the initial implementation of the Winnovators teaching programs are crucial for improving the system for future use and understanding its impact on motivation and active engagement in project activities. The respondents unequivocally expressed their support for streamlining the badge awarding mechanism to enhance its user-friendliness and intuitiveness. In addition, they proposed reducing the number of badges and providing concise descriptions. They emphasized the system's sluggish performance, which hinders user engagement. This demonstrates the necessity of persistently seeking technical optimization solutions and acknowledging the significance of these factors during the implementation of online education. The elements of the online environment and gamification support system play a crucial role in promoting collaboration and fostering connections between college students and women from vulnerable groups. The establishment of formal and informal links is crucial for ensuring the efficacy

and mutual benefits of this learning approach for both groups. The research findings provide significant insights for designers of collaborative learning systems that incorporate digital technologies and gamification components. These insights highlight crucial aspects that are essential for the successful implementation of such a system.

CONCLUSION

The document examines the WINnovators e-training and coordination protocols implemented in Estonia, Serbia, and Slovenia during the initial pilot phase in 2023. WINnovators use capacity building strategies to train and coordinate Higher Education Institutions (HEIs), Open Innovation Ecosystems (OIEs), and local communities. The program specifically focuses on empowering young women in rural regions by fostering collaboration, learning, and the development of creative job ideas. This is achieved through teamwork between HEI students and OIE specialists.

The report explores strategies for involving HEi students and young rural women in acquiring WINnovators competencies and enhancing their skills through the use of e-learning tools. Module 1 focuses on the issues faced by community entrepreneurs in the fields of STEM and STEAM.

The challenges consist of collaborative learning modules designed to assist young women in rural areas in developing ideas related to STEM/STEAM, sustainability innovation, and entrepreneurship. Estonia, Serbia, and Slovenia provide diverse challenges thanks to the competence of young women, students, and local mentors.

The research serves as the foundation for the interaction guidelines of WINnovators' e-learning Module 2, which focuses on capacity building training in both the WINnovator space and local settings. The contents of these modules have been developed based on the second year of the project's pilot phase and have been tested throughout the third year of the project.

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