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Building Advisors and Researchers' Capacity to Support Agricultural Knowledge and Innovation Systems in Europe: The Case of the I2CONNECT Summer School †

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Abstract: The I2CONNECT Horizon project introduced summer school training, aiming at strengthening the capacity of future advisors and researchers to support interactive innovations. The training consisted of two online sessions and a four-day face-to-face course, covering basic concepts and various methodological tools for stimulating active participation and strengthening innovation networks. The findings indicate the effectiveness of interactive training in cultivating skills and attitudes that enable innovations and also imply the need for the integration of participatory learning and methodological knowledge on interactive processes into university curricula. Modifying traditional university education in this direction could enhance the design and implementation of interactive projects, facilitating actors' navigation through innovative ecosystems.

Keywords: interactive training; networks; AKIS; education; innovation support services

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1. Introduction

According to the Agricultural [Knowledge and] Innovation Systems (A[K]IS) thinking, innovations are complex processes in which new ideas are developed and implemented by networks of multiple actors. In innovation networks, actors engage in social learning and adaptive experimentation to achieve desirable outcomes. Currently, such multi-actor/interactive approaches are gaining ground, being a key component in policy interventions and initiatives, such as the Strategic Working Group on Agricultural Knowledge and Innovation Systems of the Standing Committee on Agricultural Research of the EU (SWG SCAR-AKIS), the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI) and Horizon 2020 projects.

These approaches embrace actors' meaningful interaction throughout the entire innovation process since all relevant actors are considered the owners of the same complex problem, though from different angles. At the same time, these actors are considered sources of complementary knowledge, values, interests [1] and practices, which potentially—if put together—lead to a viable solution(s). The recognition that complex problems require the full engagement of diverse actors in networks leads to the need for new ways of actors' mobilization and coordination that facilitate knowledge co-creation and social learning. In this framework, within the emerging pluralistic advisory landscapes, a new set of Innovation Support Service's (ISS) [2] functions emerges as compared to that of 'conventional' advisory services, including access to knowledge; advisory, consultancy and backstopping; marketing and demand articulation; networking facilitation and brokerage; capacity building; access to resources; institutional support for niche innovation; and scaling mechanisms stimulation [3]. In this respect, a major role of ISS is that of the co-learning facilitator, aiming at the development of common meaning and language between dialogue partners in order

to encourage change and develop innovative solutions. Therefore, the advisors involved in interactive innovations need new knowledge and skills as well as a methodological toolkit to successfully shape and deliver advisory services tailored to clients' needs.

The i2connect project (https://i2connect-h2020.eu/, accessed on 19 September 2023) identified basic concepts and modes of learning relevant to the qualification of advisors and facilitators engaged in interactive innovation [4] in order to set up three summer schools in the period 2022–2024. On this basis, it adopted a non-directive, participant and problem-solving-oriented training approach [5,6] to support trainees in their own learning about concepts and methods appropriate for interactive innovation. The purpose of this work is to present the experience of the first i2connect summer school and the lessons learned, facilitating similar future efforts.

2. Materials and Methods

The first summer school was organized by the Agricultural University of Athens with the close collaboration of trainers from the University of Hohenheim, the University College Dublin, the Széchenyi István University and the Berner Fachhochschule. Twenty-six (26) MSc and PhD students from universities from eleven European countries participated. The summer school was carried out in 3 stages, including 2 two-hour online meetings and a course with physical presence for four full days. The first online meeting (28 June 2022) aimed at familiarizing participants with each other, the objectives, the structure and the basic concepts of the training, as well as assigning them the task of studying an interactive project from their country—mainly through EIP-AGRI.

The face-to-face course took place in the period from 23 to 29 July 2022 at the Mediterranean Agronomic Institute of Chania (MAICH), Crete. The course covered basic concepts of (interactive) innovation and network facilitation (Table 1). The trainers/facilitators utilized a variety of interactive exercises to encourage trainees'/participants' active engagement and trigger their creativity (e.g., cross the river, guiding the blind, AKIS analysis, controlled dialogue, egg dropping, role-playing in facilitation, walk and talk, etc.). This way, the trainees were sensitized and learned the roles undertaken and the competencies needed for successfully delivering interactive advisory services. In this respect, a variety of methodological tools were also used, such as the Spiral of Initiatives/Innovations and the Circle of Coherence [7]. Furthermore, the trainees participated in a farm visit to interview local actors engaged in an ongoing innovation project and put the tools they had learned into practice. At the end, the trainees evaluated the course with a questionnaire comprising 34 Likert-type questions and 4 open questions regarding (a) what they liked best about the training, (b) which topics were covered insufficiently, (c) suggestions for improvements, and (d) feedback about their personal learning.

Table 1. Overview of the structure and topics covered in the summer school.

Daily Sessions	Monday	Tuesday	Wednesday	Thursday	Friday
Morning sessions		Types of advisory approaches The AKIS concept	Spiral of innovation Cold & warm processes The role of advisors in innovation process	Debriefing of field visit conclusions Facilitation	Networking My own role as an advisor Evaluation
Afternoon Sessions	Introduction	Interactive approaches Competencies of advisors Communication	Farm visit -Preparation -Field trip	Facilitation exercises Debriefing Conclusions	

In the second online meeting (2 November 2022), the trainees reflected on their learnings and further strengthened their network. The participants were invited to exchange experiences in small groups based on questions such as the following: Q1: What feelings occur when thinking of the summer school in Chania? Q2: What is most prominent in my mind related to the summer school? Q3: In what way did the learnings of the summer school change my way of thinking/worldview? and Q4: What have I put into practice so far? When? How did I feel?

3. Results

The quantitative analysis of the questionnaires showed that the course exceeded the expectations of the trainees, rating their overall satisfaction at 3.83 out of 4, with the rates of the majority of the questionnaire items rated over 4 (and half of the items over 4.5/5). Specifically, the course was found to be well planned and organized (rated at 4.7 out of 5) and the content of the training quite comprehensive (4.17); the training was adjusted to the current capabilities of the trainees (4.09), while the involvement of trainees with different backgrounds was also very positive (4.67). The teaching aids used were helpful (4.74), and the methods used made the understanding of the tools easy (4.46), thus increasing trainees' confidence in their future use (4.54). In addition, the trainees were particularly satisfied with their cooperation with the trainers (4.78), who were found to be knowledgeable about the training topics (4.65), able to explain concepts and tools clearly (4.35) and were supportive and helpful when needed (4.91). The trainers were found to be excellent at encouraging active participation and interaction among trainees (4.91) and creating a constructive working atmosphere (4.91). This, along with trainees' good cooperation (4.75), positively influenced peer-to-peer interactions, resulting in increasing trainees' collaborative attitude (4.83) and their motivation to pursue further learning (4.65). As a result, they found that the course was useful, particularly as regards their professional growth (4.42).

The qualitative evaluation confirmed these findings. According to the trainees' comments, they enjoyed a dynamic and inspiring environment when working in small groups, which helped them to keep their energy high throughout the training. The training "was fun", "interesting" and "a true co-learning experience". Trainees got "good knowledge", and although "the training was pretty different from what I expected . . . it was better this way". They particularly liked "the practical side of learning (no boring lectures in a classical classroom)" and that "I was able to learn about myself and gain confidence in what I am capable of". Another trainee said: "I built a network of people that study and work in the sector; learned about innovation approaches; used new tools and expressed myself at the facilitation exercise".

An indication of students' appetite "to learn even more" was their suggestions that the next summer school should cover topics such as the facilitation of farmers' discussion groups, project management, conflict management, etc. Their recommendations included the course extension to five full days and the enrichment of thematic areas (e.g., AKIS) with more detailed knowledge. More time should be devoted to examples and developing facilitation competencies as well as to outdoor activities, including the field visit.

The follow-up online meeting confirmed that the experience of the summer school continued to induce feelings of excitement among the trainees. Communication skills, particularly active listening and exercising patience, better understanding of networking and exercising self-confidence were stated as the most prominent learnings. Moreover, certain facilitation activities and tools were put into practice after the course, indicating the impact and effectiveness of interactive training in cultivating skills and attitudes that enable interactive innovations.

4. Discussion and Conclusions

The assessment provides empirical evidence suggesting changes to the traditional (top-down/ex-cathedra) agronomic education offered to future advisors in Higher Ed-

ucation Institutes, especially with a view to the emerging 'paradigm' of interactive innovations. Participatory learning emerges as an essential pillar of advisors' education, indicating the integration of methodological knowledge about shaping and facilitating interactive processes into university curricula. Such knowledge is useful not only for advisors but academics/researchers as well, helping with tasks such as analyzing innovation networks, identifying the roles of relevant actors and navigating through innovation ecosystems. The expected benefits include more effective integration of actors and better design/implementation of interactive projects (e.g., HORIZON and EIP-AGRI).

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