# How to increase rural NEETs professional involvement in agriculture?

# The roles of youth representations and vocational training packages improvement

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Abstract

Our general aim is to explore how training experiences in agriculture can be tailored to improve the prospects of low-qualified, rural youths who are neither in employment, nor in education or training (NEET) being involved in the sector. We conducted two sequential qualitative studies in a remote and mostly rural Portuguese region, using a Participatory Action Research (PAR) approach. Study 1 involved 16 youths aged 18 to 23 years old (*M* age = 20.51; *SD* = 1.75; eight female) and consisted of four focus group discussions, which underwent a content analysis. Study 2 consisted of three world-café sessions with, respectively, five youths, seven representatives of private and public stakeholders and six representatives of the agriculture sector. Study 1 showed that low-qualified rural NEETs depict negative perceptions about agriculture. These negative perceptions are similar, in content, to those reported in other studies by youths originating in (sub)urban areas. Study 2 highlighted that a strong participatory stand to design and run training for agriculture has the potential to tailor packages that improve outreaching these youths. Furthermore, it prevents their negative representations and tackles the mismatch between training offer and local economy opportunities. These conclusions are relevant across Southern European countries, which are struggling with higher numbers of rural NEETs, as well as with weak institutional support to uphold the transition from school to work.

Keywords: Rural NEETs; agriculture; vocational training; participatory research; Portugal.

*1.Introduction*

The labor force in agriculture is declining across Europe. In 2017, agricultural activities accounted for 16.00% of the whole employment in upper-middle developed countries and 3.00% of the developed countries (International Labor Organization 2018). Alongside this, the economy and job prospects in rural communities remain dominated by agriculture both in many Central and Eastern Europeans countries, and in remote regions of the continent (Unay-Gailhard et al., 2019), including Southern Europe (blind for review). In spite of this, the sector is struggling to attract new professionals, particularly youths (European Parliament, 2017). Explicit or implicit restrictions exist on the involvement of youths in farming, such as: (a) the mismatch between these youths' professional expectations and the opportunities offered by primary sector activities; (b) the lack of family background in agriculture (blind for review); or (c) the translation into national regulations of European broadband policies, such as the Common Agriculture Policy (CAP) (Greer, 2017). Vulnerable and less qualified youths are among those who are more affected by these restrictions, especially those aged between 15 and 34 years old who are neither in employment, nor in education or training (NEET). This category is heterogeneous, including young people that fit into the International Labor Organization definition of unemployed youth, but also others not actively seeking work (Furlong, 2006). The latest figures show that the NEETs' proportion is higher in rural regions than in urban and suburban areas across the European Union (EUROSTAT, 2019). This situation may result in a win-win opportunity. Not only may rural NEETs find a solution to unemployment in agriculture, they might also help to solve the problem of sector's labor force shortage.

Our work has an overarching purpose: to explore how training experiences in agriculture can be tailored to improve rural NEETs' prospects of being involved in the

sector. This key aim is upheld by two studies. Study 1 is intended to answer a central research question: what are rural NEETs' representations regarding agriculture? Specific knowledge regarding these youths' views about the sector can help to address the mismatch between NEETs' employment needs in rural areas and job offers in those regions, across upper-middle developed and developed countries. The literature is abundant in demonstrating that youths who stay in the countryside are less qualified and have worse ideas about their abilities and competence (Theodori and Theodori, 2015). This finding is often accepted as a fatality, leaving no room for addressing how local resources, including those in the agriculture sector, may improve these youths' prospects.

Study 2 explores one research question: what are the improvements that ecoagriculture training packages need to make, to account for NEETs' representations regarding the farming sector? This question is of vital importance, because attracting and retaining young people remains one of the most difficult problems faced by agricultural education programs (Jean-Philippe et al., 2017). Training proposals in agriculture often reflect European and nationally-based broadband policies, marked by rationalization of *curricula* and resources which are not tailored to local demands or to youths' characteristics and expectations (Shore and Tosun, 2019). Consequently, the sector remains encapsulated, instead of embracing an inclusive stand, which may help to respond to the employment needs and expectations of the most vulnerable youths.

### *1.1.School to work transitions in rural areas: an overview*

The main features and needs of rural NEETs can only be captured against the broader topic of youth school to work transitions in rural areas. By definition, school to work transitions depict the period between the conclusion of full-time education or

training, the entry into continuous full-time employment, and the establishment of an independent life (Schoon and Heckhausen, 2019). Work to school transitions are shaped by individual factors, including each youth's personal characteristics, the proximal context, in terms of family and informal support, societal features, such as institutional regulations and support, or the socio-historical background (Hendry and Kloep, 2010; Schoon and Heckhausen, 2019).

School to work transitions have changed dramatically over recent decades. The switch from an industrial to an information-based economy, the consequent need for higher levels of education, the feminization of the work market and the more progressive views regarding intimacy and family formation have led to multiple, non-linear pathways for commuting between formal education and the work force (Eurofound, 2014; Tanner and Arnett, 2009). These transformations have had detrimental impacts on rural areas, which can be organized in a vicious cycle. A dominant metrocentric trend has impelled the more-academic minded youths to cities, where they can find better training and professional opportunities (blind for review; Farrugia, 2016). This trend has been particularly strong among women due to their greater orientation towards education (Leibert, 2016), but also because leaving the countryside is a chance for them to avoid the narrow traditional roles that dominate rural communities (Farrugia 2016). As a result, the employment structure has become more unbalanced, focusing on offering low-skilled or male-dominated jobs in agriculture or small industries (Leibert, 2016), which has ultimately reinforced metrocentric trends among youths.

*1.2. Rural NEETs: Who are they?*

Youth mobility and aspirations or the structure of the rural labor market help to explain, in part, the high numbers of NEETs in rural areas. According to EUROSTATs (2019) the proportion of NEETs is higher in the countryside (18.30%) than in urban areas (15.10%). This pattern is evident in 16 out of 28 countries, including Portugal. However, these up-mentioned risk factors are secondary to structural social exclusion challenges faced by rural NEETs, due to their origin. These include greater exposure to the risk of poverty or greater chance of early school leaving (above the 10% benchmark set by the European Commission). Furthermore, among people aged 30-34, just over one quarter (27.90%) of the EU-28 population that was living in a rural area had a tertiary educational level in 2015; against one third (33.4%) for people living in towns or suburbs; and almost half (48.1%) among those living in cities. This figure demonstrates that youths in these areas, including rural NEETs are less qualified. Finally, in 2015, unemployment rates in rural areas were systematically above the EU-28 average, as opposed to city rates (EUROSTAT, 2019).

The fact that rural NEETs have a greater chance of being exposed to social exclusion drivers, such as poverty, lack of education and unemployment explains why they remain as an undefined subgroup of NEETs. Their characterization can only be inferred from a bulk of literature focused on rural youth development at large or on some vulnerable youth groups living in the countryside threatened by these social risks. As a result, rural NEETs' formal support issues have only recently attracted researchers' attention, particularly the support provided by training and employment services. These services provided to rural NEETs deal with the complex long-term process of transition from school to the labor market, marked by the increasing exposure to precariousness or marginalization (Eurofound, 2014). Vulnerable rural youths may face job offers limited

to low-skilled work, fewer opportunities to develop broad work experience or reduced mobility and commutation (De Hoyos and Green, 2011). In this highly complex scenario, employment services find it hard to involve rural NEETs in the available activation and training programs, especially in the primary sector (Shore and Tosun, 2019; blind for review).

To tackle the job shortage, young people (especially women) in rural areas in most EU countries tend to focus on vocational education to a greater extent than urban youth. These youths, including rural NEETs, are affected, however, by insufficient interconnection between educational offers and labor market needs (Carcillo and Königs, 2015) due to the greater difficulty in finding employment outside agriculture (Unay-Gailhard et al., 2019). Altogether, training and employment services fail to identify and match the needs of rural NEETs and to balance job demand and offer. More successful approaches to youth employment and training needs in the sector rely on two concurrent factors. The first one is to learn about and intentionally target rural youths' collective ideas regarding agriculture. These shared ideas, also labeled as representations (Moscovici, 1961) orientate behaviors and communication about the sector as a social object in more positive or more negative ways. A second factor is to uphold the design of appropriate vocational training packages, which may also enhance the prestige of the farming sector among these youths.

### *1.3. Agriculture prestige among youth*

The literature has produced some evidence showing that youths tend to hold negative representations about agriculture based on objective (Diogo, 2007; Nag et al., 2018), subjective (Kuhmonen et al., 2016) and social factors (blind for review). The objective factors underlying youths' negative representations about agriculture are

related to the sector's demands and conditions. Overall, agriculture is an arduous activity, which can be hazardous and uncertain, entailing low-wages, precariousness or illegal work (Diogo, 2007). Youths usually connect the inherent hardship in agriculture to low skills, low technology, and negative behavioral features (Kuhmonen et al., 2016). Another objective factor behind youths' negative representations about agriculture is the limited access to land for farming, including in the most developed countries, as international food companies and big farms are accumulating soil use (Nag et al., 2018). This situation translates into a lack of knowledge or background in the primary sector among youths (Jean-Philippe et al., 2017; blind for review). Previous studies have concluded that early exposure to agricultural experiences and career paths during the middle and high school years can be a critical element toward positively influencing the agricultural perceptions and attitudes of youth (Jean-Phillipe et al., 2017). In rural areas of upper-middle developed and developed countries, these paths are only available among a shrinking number of families dedicated to farming (blind for review). Interestingly, the objective factors associated with youths' negative stereotypes about agriculture stem from studies with those living in urban areas (Jean-Philippe et al., 2017; Tiraieyari and Krauss, 2018). Still, some parallel findings have indicated that rural youths, including rural NEETs, may also develop negative images about agriculture based on the lack of resources (land), knowledge or experience (Nag et al., 2018; blind for review).

Subjective factors interfering in the process of building negative representations about agriculture are more detailed among vulnerable rural youths. Among these factors are negative self-perceptions. Rural youths usually depict themselves as low-skilled persons, dependent on their families and who have failed to fulfill a success prophecy of moving to the city to complete post-secondary studies (Farrugia, 2016; blind for

review). These experiences convey a sense of failure and lack of control over the present and future. As a consequence, many give up seeking training and occupational opportunities, including in agriculture.

Among the social factors leading to negative representations about agriculture are rural families' negative views about professional trajectories in the sector. This trend is understandable: in many cases, rural NEETs' parents belong to a first generation of workers who found a professional alternative in manufacturing or services. Moreover, given the level of dependence of rural NEETs on family support, especially in Southern European countries, parents value job options in areas that may offer higher incomes than those offered by agriculture (blind for review).

In sum, negative representations about agriculture are prevalent among youths: these stereotypes are nurtured by objective, subjective and social factors. Most of the evidence linking objective factors with negative collective ideas about the sector is limited to studies with urban youths. Moreover, most of the few findings detailing subjective and social drivers of these negative representations among rural youths have not been drawn from data collected from rural NEETs.

### *1.4. Vocational training in agriculture: Structure and challenges across Europe*

Vocational training is defined as the kind of education that seeks to promote the acquisition of knowledge and skills for the labor market (Gekara and Snell, 2017; Hollander and Yee Mar, 2009). In Europe, particularly in the EU, the vocational educational system is organized in three main tracks: vocational and technical schools, formal apprenticeships and dual apprenticeship system (Eichorst et al., 2015; European Parliament, 2017). Vocational and technical schools provide a formal curriculum blending general and occupation-related knowledge. This presents an alternative to

academically-oriented schooling tracks included in post-compulsory education options. Formal apprenticeships consist of institutional instruction complemented by workplace training. Finally, dual apprenticeship systems combine apprenticeships in the workplace with a school-based curriculum provided at a vocational school. This is based on a certification system of learning, the involvement of social partners and companies that satisfy certain criteria to offer apprenticeships (Eichorst et al., 2015).

Across the EU, agriculture vocational training is considered part of basic agricultural training. This level is seen as intermediate between simple practical agricultural experience acquired through work and full agricultural training, including any form of tertiary education in the area. Thus, basic agricultural training includes any courses completed at a general agricultural school or an institution specialized in certain subjects (e.g. horticulture). According to this typology, a completed agricultural apprenticeship is considered basic training (European Parliament, 2017).

The European Union invested in the expansion of the vocational education and training system, during and after the latest economic crisis. This investment was explicitly presented as a means to tackle the rising numbers of NEETs and long-term unemployment (Acquah and Huddlestone, 2014). The financial commitment of decision-makers with the expansion of vocational education and training has been followed by efforts to improve the quality and effectiveness (meaning, the number of certifications and employability rates) of vocational training packages. Some of these improvements are purely financial, such as scholarship schemes or fiscal incentives to companies that provide apprenticeships. Seldom advances focus on developing new curricular packages, with some of them being disappointing alternatives (e.g. studio schools) (Eichorst et al. 2015).

Both decision-makers and training institutions have kept faithful to a rationalistic approach regarding vocational training based on centralized, broadband regulations that determine processes, resources and results of the system (Fang, 2018). This vision of vocational training is deeply entrenched in a neoliberal perspective on learning processes. According to that vision, vocational training serves the marketisation of knowledge, the transferability of skills and the training of the labor force to globalization demands (Gekara and Snell, 2018). This framework is adverse to the development of vocational training in sectors such as agriculture, due to specific, outstanding challenges. Twenty-first century farmers will have to produce more efficiently, while protecting the environment, contribute to the fight against climate change, meet society's demands regarding healthy and balanced diets and keep up with increasingly rapid scientific and technological progress (International Fund for Rural Development, 2019; Murakami et al., 2017). These challenges contrast with the low levels of training in the sector. On average, only 8.50% of the present generation of European farmers have received full agricultural training and 70.00% have only practical experience. The vast majority of European farmers (69.80%) learned their skills through practical experience alone, while 8.50% received full agricultural training and 28.70% had some kind of agricultural training. Among young farmers (less than 35 years old), more than 60% learned by doing. In Portugal, the share of farmers who rely on experience alone as a source of learning is above 80% (European Parliament, 2017).

An additional challenge here is to contribute to the integration of new entrants in the sector. Among many obstacles, such as access to land and credit, new entrants in the sector can face several knowledge issues: gaining the right technical knowledge, finding networks and knowing where to find information (International Fund for Rural Development, 2019). To address these challenges, training in agriculture in the EU,

whether at a more basic or more advanced level, has been articulated with measures under the second pillar of CAP aimed at rural development policies. These measures involve international cooperation and exchange among farmers, farm advisory systems or farm incubators (European Parliament, 2017). Still, vocational training packages also need to uphold farming as a sector promoting social inclusion, which means supporting more vulnerable rural youths, such as NEETs. This requires an attempt to improve deliverance and methods in vocational training packages, as most of these youths have had unsuccessful academic trajectories and are more resistant to engage in new learning experiences (blind for review).

### *1.5. Participatory Action Research as a way to improve vocational training in agriculture*

For the past few years, participatory methods in education/training have appeared as an alternative to the limitations imposed by the rational and prescriptive training policies. One of the most popular is Participatory Action Research (PAR). PAR is best described as a community-based research approach that underlines the resolution of complex social problems. The resolution of such problems relies on the participation of all stakeholders in a non-hierarchical fashion, along with collective inquiry and action, in terms of mobilization and experimentation grounded in experience and social history (Bradbury, 2017).

PAR is rooted in a wide range of influences, from the Civil Rights Movement, to Freire's emancipatory views (1982) or the new perspectives on adult education (Bradbury, 2017). Based on these, PAR relies on three essential pillars: (a) participation, integrating life in society and democratic principles; (b) action, in terms of

engagement with social change, based on experience and history; and (c) research, in order to promote growth of knowledge (Chevalier and Buckles, 2013).

Many labels have been associated with PAR theory and practice (e.g., critical PAR, action research and psychosociology). This reflects the diversity of scientific traditions and pluralistic orientations to knowledge making and social change behind PAR. It also shows the tensions between different schools of thought associated with such an approach (Chambers, 2008). This diversity of views behind PAR is one of its most remarkable challenges, together with its considerable overlap with other research approaches, such as collaborative research, participatory or community development or applied research. Still, none of these areas of knowledge development reflect all three of PAR's pillars. Collaborative research is not committed to social change; community development approaches do not imply the mobilization of research tools and principles; applied research may be conducted without the use of participatory methods (Bradbury, 2017; Chambers, 2008; Tandon, 2002).

In the educational field, PAR more consistently stems from critical pedagogy and the politics of emancipatory action (Freire 1981). These perspectives envisage learning as being: (1) constructed by the learner; (2) the result of a personal interpretation of experience; (3) active; (4) collaborative; (5) situated in real world contexts; and (6) assessed within the learning context itself (Dong et al. ,2014). PAR has been used to address multiple educational challenges, such as literacy needs (Quigley, 2000), learners' civic and community involvement (Peters, 2004) or teachers' professional development (Whitehead, 1993), to mention just a few. PAR has also been implemented to improve training packages (Dong et al. 2014; Fang 2018). According to this view, training package improvement or full-design should be a democratic process involving various stakeholders, with target learners of a system playing a vital role in designing

solutions (Dong et al., 2014). Thus, PAR's pillars of participation, action and research can shape efforts to develop whole training packages in agriculture, thus upholding an effective inclusion of those who are outside the sector, such as rural NEETs, as well as all stakeholders.

### *1.6. Involving rural NEETs in agriculture in The Azores Islands*

Our research project took place in The Azores Islands, a peripheral and mostly rural region of Portugal, which presents the highest NEETs' rates across the regions of the country (Instituto Nacional de Estatística, 2019). We set up the project in collaboration with Caritas da Ilha Terceira, a local non-governmental organization (NGO) run by the Catholic Church, and part of the Caritas International network operating worldwide. In the Azores, Caritas da Ilha Terceira has run a center for disadvantaged youths since 2004. The center is integrated in a regional network involving 10 youth centers run by other private organizations and supported by the regional government. The centers work as one-stop shops spread among the archipelago's three most populated islands, providing occupational activities, psychotherapy, orientation and vocational guidance services. Four of them also have non-formal and formal educational programs, including that run by Caritas da Ilha Terceira. All centers work closely with public social and employment services, schools, child and youth protection committees, youth associations and private companies. Since 2013, Caritas da Ilha Terceira has developed a package of ecoagriculture activities, financed by private funding. This has led to the creation of an ecoagriculture social business.

More recently, Caritas da Ilha Terceira started to develop the program *Cultivar Vocações* (Training Vocations), involving free, short-term training packages on

ecoagriculture activities. This option stemmed from three priorities: (a) the need to speed up the match between a high number of NEETs in the region and the growing needs of workers in the sector; (b) to do so by diversifying training niches in order to avoid the risks of training overload, in terms of simultaneous, overlapping training offers in the region (blind for review); and (c) to comply with regional policies issued in the last 5 years in order to facilitate these youths' (re)training in agricultural activities.

In Training Vocations, most of the candidates were indicated by the local public employment services; the remaining were targeted by social welfare services and Caritas da Ilha Terceira. Information sessions were held before the selection process to explain the program to the potential candidates. Afterwards, those showing interest in the training package were interviewed. The selected candidates were enrolled in three different short-term training courses: vegetable, fruit and honey production. The training in each area included a 25-hour theoretical component (50 hours in the case of honey production), followed by 50 hours of practice. Each of the youths could choose the number of training courses to attend. Afterwards, they could also be enrolled in 150 hours of apprenticeship with a local producer in one of the previously attended training areas.

### *1.7. The present work*

Our research explored how training experiences in agriculture can be tailored to improve rural NEETs' prospects of being involved in the sector. To address our aim, we developed a qualitative participatory research project composed by two sequential qualitative studies. Study 1 stems from one central research question: what representations do rural NEETs' hold about agriculture? To address this research question, we conducted four focus groups with youths that had been involved in the community-based vocational training project in ecoagriculture run by Caritas da Ilha

Terceira. By the time they were enrolled in the vocational training, they were all NEETs. This study took place in December 2018.

Study 2 aimed at exploring an additional research question: what improvements do ecoagriculture training packages need to make, to account for NEETs' representations regarding the farming sector? Bearing that in mind, we followed a PAR approach, by implementing three world-café sessions. World-café is a flexible participatory tool for hosting large group dialogue, collapsed into small group discussions organized around a question or a set of given questions (Vogt et al., 2003). The first world-café session involved some of the youths who had participated in Study 1; the second session involved stakeholders (training staff, public and private service representatives); with the third session bringing in representatives of local public and private organizations operating in the area of agriculture and lasted between 90 minutes and 2 hours. The collected information was then used to create a roadmap of improvement recommendations which was delivered to Caritas da Ilha Terceira. Writing-up the roadmap involved the research team, youths and institutional stakeholders.

For both studies, we obtained approval from the Ethics' Committee of the research institution responsible for the study, from the Caritas da Ilha Terceira board, as well as from all of the participants.

## *2. Method*

### *2.1. Study 1*

#### *2.1.1. Participants*

Twenty six rural NEETs aged 18 to 23 years old (*M* age = 20.54; *SD* = 1.61; 14 female) were invited by Caritas da Ilha Terceira to participate. They were the first to be

involved in a community-based, short-term training package in ecoagriculture activities between January and November 2018. Sixteen of them agreed to participate in the study. Their ages ranged from 18 to 23 years old (*M* age = 20.51; *SD* = 1.75; eight female). Fifteen had completed the 9th grade, corresponding to the upper-middle school level of the Portuguese educational system; one of the participants had only completed the 4th grade in school. Fourteen of them have had some sort of work experience, but only two of the participants mentioned any previous work experience in agriculture. Prior to the training experience, 15 of the participants reported 12 months or less of work experience time. By the time the training in ecoagriculture began, 13 of the participants were registered in the local employment services agency.

Chi-square tests and *t* tests show that there were no differences between the 26 potential participants and the actual 16 participants regarding sex, $\chi 2$ (2,1) = 1.01, $p$ = .31, age, $F$ (24, 2) = 1.56, $p$ = .88, previous work experience, $\chi 2$ (2,1) = .04, $p$ = .85, job duration, $\chi 2$ (2,1) = .23, $p$ = .97 and registration in local employment services $\chi 2$ (2,1) = .36, $p$ = .55. Thus, the actual participants were equivalent to the ones that declined the invitation or were not available to participate, meaning that the results were not influenced by selection factors.

*2.1.2. Focus groups*

We implemented two waves of proportional random assignment to form four gender-balanced focus groups. In the first wave, we randomly assigned the participants aged 18 to 20 years old into two groups. In the second wave, we did the same regarding those aged 21 to 23 years old.

The focus group discussions were based on a script with four main questions supported by prompts. The first two questions focused on the topic of NEETs'

representations about agriculture. The following two questions focused on the facilitators/barriers to NEETs' involvement in vocational training in agriculture. For each topic our script involved: (a) a main question focused on what the participants thought about rural NEETs' opinions, in general, to stimulate discussion; (b) prompts to enable each participant to integrate his/her own views, based on the short-term training program experiences; and (c) a summary with an overview of opinions. Hence, we followed an hourglass approach. This means that the participants debriefing evolved from projecting opinions on NEETs' general ideas about the discussed topics, to personalized references, based on individual experiences, followed by an overall conclusion. In addition, we created a notebook to record the sequences of interventions and codify the type of interventions (agreement/disagreement). The instruments of this study are openly available in a methodological appendix in OSF at http://bit.ly/2O9Ao2F.

Group discussions were fired up by the researcher. He has worked for more than 15 years in projects aimed at the social inclusion of rural NEETs and is also experienced in conducting group discussions with youths. A research assistant was responsible for collecting additional individual and interaction data, besides summarizing intermediate and final conclusions. Gender-balance was an intentional feature of the research team organization, in order to transmit an idea of power equality in discussions (Onwuegbuzie et al., 2009). The discussions lasted, in average, 1 hour.

### *2.1.3. Data analyses*

We conducted a sequential mixed analysis to integrate different levels of analysis (groups, interactions and participants), together with triangulating findings from qualitative data with quantitative results (Onwuegbuzie's et al., 2009).

Regarding groups, we conducted an inductive content analysis, to reach to main themes and sub-themes. We followed eight steps: (1) transcription of the focus groups; (2) decontextualization (by identifying and creating a list of meaning units); (3) recontextualization (by rereading the meaning units, alongside the whole text, in order to check if all aspects of the content had been covered in relation to the aim); (4) running a pilot identification of homogenous themes/sub-themes; (5) running a pilot inter-raters' agreement on one of the focus groups; (6) refining themes and sub-themes content; (7) repeating steps 1 to 3, with the whole list of meaning units; and (8) establishing an inter-raters' agreement on the whole meaning units. The frequencies and proportions of main themes and sub-themes were calculated for each group. Afterwards, we used chi-square tests to assess consistency across groups regarding themes/sub-themes proportion. We then conducted a correspondence analysis using symmetrical normalization method, with distance measurement based on a chi-square test.

The units of meaning were reanalyzed regarding interactions, namely interaction sequences, to assess the level of consent/disagreement (Grønkjær et al., 2011). We considered an interaction sequence as each discussion held between two questions issued by the facilitator. To analyze the interactions sequences, we used a pair adjacency analysis approach (Grønkjær et al., 2011). An adjacency pair is composed of two utterances made by two speakers, one after the other. Pair adjacencies were registered in SPSS 25.0 by group and question using five codes: A (verbal agreement); DES (verbal disagreement); EX+ (participant illustrates by giving example of agreement); EX – (participant illustrates by giving example of disagreement); and S = (silence). Within each interaction sequence, we verified the combination of these pair adjacency codes, re-codifying it according to three possibilities: labels: 0 = disagreement (pairs of utterances are combined in a sequence showing the participants

do not have the same opinion); 1 = partial agreement (pairs of utterances are combined in a sequence of utterances and silence); 2 = full agreement (pairs of utterances are combined in a sequence showing the participants have the same opinion). Afterwards, we calculated the frequencies for the level of consensus/dissent in interaction sequences within groups; then we compared the proportion of consensus/dissent across groups, using chi-square tests.

Each participant sequence of interventions was registered by the research assistant in order to assess the level of contribution (number of utterances) by each of them. These frequencies were calculated and compared across groups using chi-square tests.

### *2.2. Results*

#### *2.2.1. Qualitative analysis*

The content analysis revealed three main themes. The most frequent main theme was *improvement of vocational training experiences in agriculture* (47 references; 52.81%). This category integrated all the references to the need to improve the conditions under which agriculture vocational training took place, based on identified barriers and facilitators. This theme aggregated five sub-themes. The most recurrent sub-theme was *training activities organization* (14 references; 29.79%). In this case, the participants considered that more appropriate training activities management (in terms of the duration, schedules and content of training activities activities) would improve other youths' interest in ecoagriculture training courses. While discussing this theme, youths tended to focus more recurrently on training duration issues, as the following Group 3 example illustrates:

**F:** Thinking about your training experience, which aspects were not so positive and could demotivate your [NEET] friends?

**V:** We had so many things to learn and the schedule was so tight…we had to write and write and, by the end, we'd learned almost nothing. The teacher spoke and spoke and we wrote and wrote and, on the next day, we changed to another topic without even having learnt the previous topic very well.

**T:** The [training] time was very short.

**V:** I think the teachers taught the basics, but for us it was hard! I had never learned anything about agriculture. Some things had weird names and I couldn´t learn that fast.

Another frequent sub-theme was *improving knowledge* (12 references; 25.53%). In this domain, youths' conversations suggested that more information or knowledge or greater efforts to improve information dissemination may improve youths' representations about agriculture, as well as making them more open to participate in training experiences in the sector. The following passage on a conversation in Group 3 illustrates this theme:

**F** Would your NEET friends keep their negative ideas about agriculture if they came to the training course?

**T:** If they liked [the training], they would finish [the course].

**V:** I think they would understand it is an important job for us to have good food.

**A:** They would change some of their ideas, they would see it's not just about digging. There's other things [to know]. They have to experience it. It's a question of experience.

**F:** Ok, it's a question of experience...

**A:** They might even like it…

**T:** Perhaps some of them; they go, like, "that might be easy", but then when they get to...when they do it, perhaps they'll see it's not that easy. It would be a good challenge [for them].

The improvement of training experiences in agriculture was also recurrently associated with the *quality of ecoagriculture products* (10 references; 21.28%). Youths' conversations on this matter underlined how the quality of ecoagriculture and its contribution to health and sustainability may be a convincing argument to more easily involve NEETs in upcoming training opportunities, as the following passage from a Group 4 conversation shows:

**M:** It depends if it is someone that enjoys nature, enjoying caring about nature without using chemicals and other substances; or if it is someone that might learn to enjoy it. At first, we go to work, to put seeds in the land. We don't enjoy it, but then they grow and we start liking it. (...) With chemicals anything grows fast.

**F:** Was the fact that it was ecoagriculture change your ideas about agriculture?

**M**: Yeah, it did. Because ecoagriculture does not use chemicals and is better for your body. It could even sell more and is healthier.

**D:** If they [the friends] like to eat, yeah, they will change their minds (laughter).

**G:** And if they start understanding about food too. Many people don't even know what they're eating. They just sit at the table and eat.

More rarely, conversations identified the improvement of vocational training experiences in agriculture that would rely on nurturing youths' perceptions of (eco)agriculture as an area that might provide a *work opportunity* (4 references; 8.51%).

In the same vein, participant conversations also valued the *social support* provided by teachers and other staff that might improve other NEETs' interest in agriculture (4 references; 8.51%). They also acknowledged that NEETs' participation in vocational training courses, would depend on financial incentives, such as scholarships, during the time period of the training (3 references; 6.38%).

The second most recurrent theme was *NEETs' negative representations about agriculture* (32 references; 36.96%). This theme brought together all the discussions reflecting the participants' or other NEETs' negative perceptions regarding agriculture as a source of employment. This theme relied on five sub-themes. The most recurrent one was *heavy and dirty job* (8 references; 25.00%). This sub-theme aggregated discussions showing that the participants perceived agricultural work as being heavy (in the sense of physically demanding) and dirty, as the following passage from a Group 1 discussion illustrates:

> **F:** When you say they [other NEETs] have a bad opinion of it, what do you mean? Could you give some examples?
>
> **B:** Hum, you need to cultivate the land, and people don't like to work the land
>
> **D**: They don't want to get their hands dirty.
>
> **F:** Not get their hands dirty?
>
> **B**: Yeah, not get their hands dirty. And that´s why some of them [friends who are also NEETs] do not even like vegetables. They associate them with the land and think it's dirty and so on.

NEETs' negative representations about agriculture also stem from perceptions that the sector offers *low income* (8 references; 25.00%) due to low wages, or has very high costs associated with the production of goods. The next discussion in Group 2 illustrates this trend:

**B:** Hum, it's obvious that those who study and have, like, a more qualified job also have a higher salary. People think that agriculture is work that does not require qualifications and, because of that, it has lower salaries.

**F:** So, it's work that doesn't require any knowledge...

**B:** Yeah, it's as if you don't need to study, you just have to learn from older people. (...) That´s why your salary is lower, because of that stuff. And then, some people that work in agriculture hire their employees for only some hours when they need them, and they don't pay social security. That reduces the salary even more.

**D:** Yeah, work done in the fields and fishing should be more valued. We´re talking about agriculture, but fishing should also be valued. These areas should have better conditions in our country.

NEETs' negative representations about agriculture were also explained by the participants in terms of *lack of motivation* (7 references; 21.88%). According to the participants, lack of motivation can emerge in terms of lack of interest in agriculture and greater interest in other areas, such as services, or immaturity associated with a younger age. The following Group 4 discussion, based on the participants' experience of their short-training experience, illustrates how younger NEETs tended to be less motivated for training:

**M:** I think [lack of motivation] was because of their age.

**F:** Could you say a bit more about that?

**M**: Some of them [the trainees] were too young...

**G:** Too young? They were 18, they should have...

**D:** They're people who enjoy going out at night. They don't like to work.

**M:** But if it was a training course in technology, they would be standing in a queue to be selected.

**D:** Yeah, instead they prefer to go to the city, have a cup of coffee or hang out.

**M:** Exactly.

A fourth sub-theme associated with youths' negative perceptions about agriculture is *lack of knowledge* (4 references; 8.51%). Youths' conversations classified under this sub-theme include considerations on how NEETs' negative perceptions about agriculture are due to lack of information about the sector. More rarely, the participants had conversations about the *masculinization* (3 references; 9.37%) of the sector. In this case, NEETs' negative perceptions about agricultural activities stem from a belief that the sector is dominated by men.

Finally, a much less recurrent theme was *NEETs' positive representations about agriculture* (10 references; 11.23%). This theme encompassed discussions reflecting the participants' or other NEETs' positive perceptions regarding agriculture as a source of employment. This theme relied on 3 sub-themes. The most commonly discussed source of positive representation of agriculture was *savoring agriculture activities* (5 references; 50.00%). This category covered discussions depicting how positive perspectives on agriculture rely on youths valuing agricultural activities, because they are connected to nature conservation or to open-air activities. More rarely, NEETs' positive representations of agriculture were connected to views that the sector promoted terms of *gender equality* (3 references; 30.00%). These discussions counteracted the stereotype that agriculture should remain a male dominated sector, because the tasks are too heavy or too dirty for women. Hence, the core idea arising from these discussions is that agriculture enables a balanced participation of men and women. Finally, some

positive perspectives about agriculture relied on *family positive perceptions* (2 references; 20.00%). These accounts were included in this category, because NEETs' parents or other relatives also depict positive representations about the sector, based on the prior professional experience of some relatives or on the small production of goods for family consumption. Although the number of the references to these sub-themes was very scarce, they were retained due to their very specific content.

Table 1 displays the distribution (frequencies and percentages) of themes and sub-themes.

(Table 1 approximately here)

*2.2.2. Quantitative analysis*

The level of inter-raters' agreement was adequate for themes ($k$ = .91) and sub-themes ($k$ = .91). The chi-square test regarding the distribution of themes presented in Table 2 shows that there are no differences between groups, $\chi 2$ (6,1) = 1.02, $p$ = .99. Correspondence analysis further confirms that the distribution of themes is uniform across groups. Figure 1 shows how, in general, the discussions in all groups focused more on the improvement of training experiences in ecoagriculture and on negative representations of agriculture. Table 3 summarizes the number of utterances by participant for each group. This analysis helped to understand if the number of interventions was unbalanced across participations within each group. This verification was supplemented by Pearson chi-square tests comparisons to check if the distribution of consensus codes across groups was uneven. Both analyses did not reveal differences between the groups. Table 4 summarizes the distribution of the level of consensus in interaction sequences for each group. Pearson chi-square test comparisons regarding the distribution of utterances by participants and the level of consensus for interaction sequences did not reveal differences between any pair of groups in this case too.

(Tables 2 to 5 approximately here)

(Figure 1 approximately here)

*2.3. Study 2*

*2.3.1. Participants*

Five youths (*M* = 20.40; *SD* = .93; 4 male) volunteered to participate in the first world-café session. The second world-café session gathered seven stakeholder representatives (*M* = 42.86; *SD* = 4.99; four female): four members of the Caritas da Ilha Terceira staff, one member of the board of the institution and two representatives of local public social welfare services. A representative of the public employment services was invited and accepted the invitation, but later was unavailable. The third world-café session involved six representatives of local public or private organizations operating in the area of agriculture (*M* = 42.17; *SD* = 4.04; four male). Two of them represented the local rural development services, one was a member of the board of the association of young farmers; one was a member of a local cooperative of ecoagriculture; two were invited for their experience as agriculture trainers in local vocational/educational programs. Homogeneity of the groups was an intentional feature to prevent a hierarchical display of the discussions, with those with an institutional role or expertise dominating youths' opinions.

*2.3.2. Instruments and data collection*

We created a script and notebook for the world-café sessions. The script followed the principles of the world-café methodology. The script, the notebook and the world-café principles are described in the methodological appendix of this work (Vogt et al. 2003). This study was conducted by the same research team that implemented Study 1. The world-café sessions were facilitated by the main researcher. The research assistant

was responsible for registering the participants' contributions in a notebook. The notebook was organized in three columns: label, description of proposal and subgroup number. The document was projected while the plenary discussions were held, so that the participants could visualize the information and discuss all actions (listing and comparing proposals, and labeling areas of improvement). Later on, the information collected in these sessions was used to compile a roadmap of improvement recommendations prepared and reviewed by the research team and the participants and delivered to Caritas da Ilha Terceira.

### *2.3.3. Data analysis*

The information was reviewed at the end of each world-café session by the research team. Table 5 was then created in order to visualize information according to two criteria: consistency – in terms of verifying if a given area of improvement was mentioned across sessions; number of mentioned proposals – and the total number of proposals that were made for each area of improvement.

## *2.4. Results*

Regarding *preparation*, the most consistently mentioned area of improvement across sessions and in number of mentions was outreach (*n* sessions = 3; *fi* = 11). Proposals in this regard were diverse: from improving processes (e.g. outreach sessions with the participation of former trainees; offering more information about actual job opportunities that are available in the sector, by different specific production areas – e.g. fruit production) to creating materials that attract youths, such as videos with personal testimonials and uploading them to social media. Other proposals received less attention across sessions, such as improving the coordination between stakeholders through

meetings, or improving youth motivation, through performance prizes or financial incentives, such as scholarships.

Concerning *selection*, the most prominent area of improvement agreed upon across sessions was exploration (*n* sessions = 3; *fi* = 11). By exploration, the participants meant the need to promote activities, such as informal sessions or workshops that would increase NEETs' knowledge about the area, in terms of required skills, job opportunities and challenges, or short-term experiences with local producers, among others. Another area of improvement cutting across sessions was interviews (*n* sessions = 3; *fi* = 9). This label brought together all proposals related to improving the interview process, from including people with a background in agriculture in the interviewing team, to creating new blocks of questions (e.g. challenges related to the work in the area).

When discussing the *implementation*, the most frequent and consistent area of improvement discussed across world-café sessions was curricular design (*n* sessions = 3; *fi* = 17). This label involved all proposals which aimed at improving the structure and content of the training program, such as including new content related to vocational guidance and counseling in the area; or considering emergent areas or alternative niches on yearly proposals of the package. Time issues were also debated; greater duration (in terms of increasing the total hours of training) (*n* sessions = 3; *fi* = 5) was consistently suggested across sessions, with a more efficient organization of schedules (*n* sessions = 2; *fi* = 4), providing full-day training or a mixture of a full-day and half-day training scheme also being proposed. Improving apprenticeships (*n* sessions = 2; *fi* = 3), in terms of the number of available producers provided or the revision of the profile of skills and tasks to be developed received less attention.

Finally, in terms of *assessment and dissemination*, most of the proposals were labeled under dissemination of results (*n* sessions = 3; *fi* = 14). The proposals in this

respect covered all actions enabling the presentation of results to stakeholders, other NEETs and the community in general. The options to achieve this goal ranged from the participation of stakeholders and producers in the on-going training activities, to creating dissemination materials (e.g. Vlog, recipes book with the project products), intensifying dissemination through social and traditional media or the regular participation in sector events (e.g. fairs, conferences).

(Table 5 approximately here)

*3. General discussion*

Study 1 aimed at exploring one research question: what representations do rural NEETs' hold about agriculture? This study led to three main findings. First, participants echoed recurrent negative representations of agriculture among rural NEETs. More frequently, their conversations displayed representations of agriculture as a sector providing heavy, dirty and low-waged jobs, leading to low motivation to be involved in it. Thus, similar to other youths across urban, suburban and rural regions (Kuhmonen et al., 2016), rural NEETs tend to overemphasize agriculture's objective hardship as an arduous activity, involving low-wages or precariousness (Diogo, 2007). However, other subjective features of these youths' negative representations about agriculture were also salient. Occasionally, participants debated that negative perceptions about agriculture among rural NEETs stemmed from lack of knowledge. This sort of discussions is aligned with earlier findings showing that youths' shortage of information or background in agriculture intensifies negative distortions about the sector (Jean-Philippe et al., 2017; blind for review). In addition, some discussions also pointed out that the masculinization of the labor force was still viewed as a barrier to more positive representations about the sector. At least among urban youths, this is also a relevant image of agriculture activities (Kuhmonen et al., 2016).

Second, prevalent negative images about agriculture are paralleled by scarce references to positive representations about the sector among rural NEETs. When discussing brighter images regarding agriculture, the participants emphasized prior experience in terms of savoring these activities or family positive perceptions about the sector. Recent findings demonstrate how early contact with agriculture determines greater inclination to consider the area as a professional option (Jean-Phillippe et al., 2017). However, among rural NEETs, this choice is narrower because many of them come from households with no experience in the sector or have to cope with parents who disapprove of a professional future in agriculture (blind for review). Recurrent and stronger positive perceptions among rural NEETs are further limited by other objective barriers to youths' involvement in the sector. Among these barriers is the limited access to land resources (Nag et al., 2018), as well as broadband policies insisting on farmers' interests and food safety, imposing an agricultural policy subsystem that prevents the inclusion of new agents and producers (Greer, 2017).

Interestingly, some positive representations about agriculture voiced during the conversations were related to the vision that the sector could fulfill gender equality. Although mention of this subtheme is rare, it still shows how perceiving work opportunities for women in agriculture may counteract masculinization trends in rural areas in terms of the prevalence of male-dominated activities associated with women's intention to leave the countryside (Leibert, 2016).

Third, Study 1 opened up the discussion on how to improve training packages in ecoagriculture that can more easily attract rural NEETs. In this study, the participants' discussion of facilitators and barriers related to vocational training in agriculture resulted in the suggestion of some general improvements in training experiences in the sector. Among the most frequently debated improvements were a better organization of

the activities (e.g. duration or greater focus on practical learning), increasing knowledge about agriculture among NEETs, and the need to raise the quality of ecoagriculture products compared to conventional forms of producing food goods. The views of youths, stakeholders and representatives of the sector collected in three world-café sessions organized in Study 2 helped to more clearly answer to our second research question: what improvements do ecoagriculture training packages need to make, to account for NEETs' representations regarding the farming sector? The information collected in this study brought forward improvement proposals organized around four key processes of a vocational training package. In terms of preparation and selection processes, the proposals highlighted the importance of outreach and preparatory activities, in terms of stimulating youths' involvement and participation. For example, while former trainees can assist by offering their testimonials in outreach activities, potential candidates to new training packages can be involved in discovering the area through informal group sessions/workshops. Training implementation proposals made in Study 2 confirmed the need not only to improve training packages design discussed in Study 1, but also offered new perspectives on how this could be done. Beside structural improvements (e.g. in terms of duration), youths, stakeholders and representatives of the sector emphasized proposals to tailor each training package to different groups' needs and expectations. The exploration of niches and emergent areas prior to full training implementation, the importance of considering mentoring and follow-up schemes or the inclusion of vocational guidance modules prior to apprenticeships are examples of a youth-focused training design trend proposed by the participants. These proposals were clearly aligned with the need to increase knowledge about the area mentioned by the participants in Study 1. Moreover, they reflect the need to ensure the participation of youths at early stages of the training package

development, in order to counteract an overemphasis on negative representations, also voiced in Study 1. Finally, while discussing assessment and dissemination, participants in world-café sessions tended to focus on the latter. Their suggestions highlighted the importance of youths being the protagonists of their own biographies in the agriculture sector. This might be achieved through the spreading of their testimonials, but also if these youths are involved as active agents of improvement and change in the sector, side by side with producers, trainers and other actors.

The general improvements in agriculture training packages explored in Study 1, taken together with the more structured contributions stemming from Study 2 offer valuable guidelines on improving training experiences in the area. Moreover, we believe they help to tackle three problems identified in previous research. First, a process of active involvement of youths prior to all stages of a training package strengthens more reasonable and realistic representations regarding agriculture activities, as discussed above. Second, such involvement of all stakeholders, from the private and the public sector, from preparation to the dissemination stage, can help to cope with serious problems regarding NEETs' outreach in rural areas acknowledged by public services and agencies (Sadler et al., 2015; Shore and Tosun, 2019). Rural NEETs are harder to target and to involve in activation and training programs, mostly because services tend to offer options which are not aligned with regional and individual demands (Shore and Tosun, 2019). Mixed approaches, combining the private and the public sector enhance the potential to reach out to these youths (blind for review). Moreover, youth-centered training and employment approaches to support rural NEETs have been upheld by different reports (Shore and Tosun, 2019; blind for review). Third, the guidelines emerging from our collaborative research effort challenge the rationalistic approach regarding vocational education, with processes, resources and results predetermined by

centralized, broadband regulations (Fang, 2018). While being a strong and predictable system (Eichorst et al., 2015), the European vocational training is also an inflexible one, when facing local/regional limitations and particular problems, such as those rural NEETs have to cope with.

### *3.1. Implications and limitations*

Both studies have implications in rural areas across upper-middle developed and developed countries, such as: (a) accounting for rural NEETs' representations about agriculture when improving training packages; (b) greater connection between vocational training offers and the needs of local economies, while tackling feelings of hopelessness among those NEETs with lower qualifications (Carcillo and Königs, 2015; Theodori and Theodori, 2015); (c) greater coherence between NEETs' employment needs and available job offers in those regions; and (d) truly providing a win-win opportunity to rural NEETs (who need to find a professional path) and the sector (needing to solve its workforce's aging problem). These implications are specifically relevant across Southern European countries (Portugal, Spain, Italy and Greece), because they are clustered in a sub-protective transition regime from school to work. This regime is characterized by a high share of precarious or insecure employment conditions, a weak comprehensive social safety net and an educational system, in which vocational training is not well developed, nor highly valued (Eurofound, 2014; Schoon and Heckhausen, 2019). These implications may also be seen as promising avenues to improve training and knowledge in rural areas across these countries, which present a problem of low qualified human resources in the agriculture sector (European Parliament, 2017).

Our work has limitations. First, the total number of units of meaning retained in Study 1 tended to be too long. This might have resulted from the fact that only under-qualified, rural NEETs were involved. Hence, homogeneous groups may have delivered homogeneous views. There was a low number of youths volunteering to participate in the world-café session. This limited the implementation of the methodology; namely, small group discussions were not possible in this session. Nevertheless, we followed the same structure to organize proposals in all sessions. In addition, important sectorial representatives (e.g. employment services) were not available to participate in world-café sessions. It might be that contradictions between the proposals and legislation requirements (e.g. training certification) were not made explicit.

## *4. Conclusion*

Low-skilled, rural NEETs depict negative perceptions about agriculture. These negative perceptions are similar, in content, to those presented by youths coming from (sub)urban areas, even after a training experience in ecoagriculture. Moreover, youths, stakeholders and sectorial representatives agree on the need to improve vocational training packages to tackle negative, unrealistic expectations about the sector. This can be achieved by involving these youths at all stages of the process of designing and implementing a training package in agriculture. Thus, we conclude that readjusting rural NEETs' representations about agriculture depends on increasing their level of participation, while providing the means to improve training packages solutions tailored to these youths' needs and expectations.

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## References

Acquah, D. K., Huddleston, P. (2014). Challenges and opportunities for vocational education and training in the light of raising the participation age. Research in Post-Compulsory Education, 19, pp. 1-17.

Bradbury, H. (2017). The SAGE handbook of Action Research. London, SAGE Publications Ltd. doi:10.4135/9781848607934.

Carcillo, S., and Königs, S. (2015). NEET Youth in the Aftermath of the Crisis: Challenges and policies. doi:10.2139/ssrn.2573655.

Chambers, R. (2008) PRA, PLA and Pluralism: Practice and Theory, In Reason, P. and H. Bradbury, Editors, 2008. *The Sage Handbook of Action Research*: Participative *Inquiry and Practice*, London, Sage.

Chevalier, J.M. and Buckles, D.J. (2013) Participatory Action Research: Theory and Methods for Engaged Inquiry, London, Routledge.

De Hoyos, M. and Green, A. (2011). Recruitment and retention issues in rural labour markets. Journal of Rural Studies, 27, pp. 171–80. doi:10.1016/j.jrurstud.2010.12.003.

Diogo, F. (2007). Pobreza, Trabalho, Identidade [Poverty, Work, Identity], Lisboa, Celta Editora.

Dong, J., Qin, X., Chen. P. (2014). Enhancing collaborative project-based learning using participatory design approach. 2014 IEEE Frontiers in Education Conference (FIE) Proceedings, Frontiers in Education Conference (FIE), 2014 IEEE, 2014, *1*. doi:10.1109/FIE.2014.7044033.

Eichhorst, W., Rodríguez-Planas, N., Schmidl, R., and Zimermann, K. F. (2015). A road map to vocational education and training in industrialized countries.

Industrial and Labor Relations Review, 68, pp. 314-337. doi:10.1177/0019793914564963.

Eurofound (2014). Mapping Youth Transitions in Europe. Retrieved from https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1392en_0.pdf

European Parliament (2017). Agricultural Education and Lifelong Training in the EU. Retrieved from: http://www.europarl.europa.eu/RegData/etudes/BRIE/2017/608788/EPRS_BRI(2017)608788_EN.pdf

EUROSTAT (2019). Statistics on Young People neither in Employment, nor Education or Training. Retrieved from http://ec.europa.eu/eurostat/statisticsexplained/.

Fang, Y. (2018). Entrepreneuring for transition: A participatory action research on community-engaged curriculum design in higher education. Entrepreneurship Education 1, pp. 85-104. doi: 10.1007/s41959-018-0003-x.

Farrugia, D. (2016). The mobility imperative for rural youth: The structural, symbolic and non-representational dimensions rural youth mobilities. Journal of Youth Studies, 19, pp. 836–51. doi:10.1080/13676261.2015.1112886.

Freire, P. (1982) Creating alternative research methods. Learning to do it by doing it, In Hall, B., Gillette, A. and R. Tandon, Editors, *Creating Knowledge: A Monopoly*, New Delhi, Society for Participatory Research in Asia.

Furlong, A. (2006). Not a very NEET solution: Representing problematic labour market transitions among early school-leavers. Work, Employment and Society 20, pp. 553–69. doi:10.1177/0950017006067001.

Gekara, V., and Snell, D. (2018). Designing and delivering skills transferability and employment mobility: The challenges of a market-driven vocational education

and training system. Journal of Vocational Education and Training, 70, pp. 107–29. doi:10.1080/13636820.2017.1392996.

Greer, A. (2017). Post-exceptional politics in agriculture: An examination of the 2013 CAP reform. Journal of European Public Policy, 24, pp.1585–1603. doi:10.1080/13501763.2017.1334080.

Grønkjær, M. T. C., Crespigny, C., and Delmar, C. (2011). Analysing group interaction in focus group research: Impact on content and the role of the moderator. Qualitative Studies 2, pp. 16-30. doi: edsdoj.48a8fc7de85b448a9666d0a9cba1e588

Hendry, L. B., and Kloep, M. (2010). How universal is emerging adulthood? An empirical example. Journal of Youth Studies, 13(2), pp. 169–179. https://doi.org/10.1080/13676260903295067

Hollander, A., and Mar, N. Y. (2009). Towards Achieving TVET for All: The Role of the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training. In International Handbook of Education for the Changing World of Work (pp. 41–57). Springer Netherlands. https://doi.org/10.1007/978-1-4020-5281-1_3

Instituto Nacional de Estatística (2019). Employment inquiry 2018. Retrieved from: https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0006268&contexto=bd&selTab=tab2

International Fund for Rural Development (2019). Creating Opportunities for Rural Youth: 2019 Rural Development Report. Retrieved from https://www.ifad.org/en/web/knowledge/publication/asset/41173272

International Labour Organization. (2018). World Employment Social Outlook: Trends 2018. Retriveved from http://ilo.org/global/research/global-reports/weso/2018/WCMS_615594/lang–en/index.htm

Jean-Philippe, S., Richards, J., Gwinn, K., and Beyl, C. (2017). Urban youth perceptions of agriculture. Journal of Youth Development 12, pp. 1-17. University Library System, University of Pittsburgh: doi:10.5195/jyd.2017.497.

Kuhmonen, T., Kuhmonen, I., and Luoto, L. (2016). How do rural areas profile in the futures dreams by the Finnish youth? Journal of Rural Studies 44, pp. 89–100. doi:10.1016/j.jrurstud.2016.01.010.

Leibert, T. (2016). She leaves, he stays? Sex-selective migration in rural East Germany. Journal of Rural Studies 43, pp. 267–79. doi:10.1016/j.jrurstud.2015.06.004.

Moscovici, S. (1961). La Psychanalyse, son Image et son Public. Paris: Presses Universitaires de France.

Murakami, C. D., Mary K. Hendrickson, M. K., and Siegel, M. A.. 2017. Sociocultural tensions and wicked problems in sustainable agriculture education. Agriculture and Human Values 34, pp 591–606. doi:10.1007/s10460-016-9752-x.

Nag, A., Jha, S. K., Mohammad, A., Maiti, S., Gupta, J., Gosain, D. K., Datta, K. K., and Mohanty, T. K. (2018). Predictive factors affecting Indian rural farm youths' decisions to stay in or leave agriculture sector. Journal of Agricultural Science and Technology, 20, pp. 221–34.

Onwuegbuzie, A. J., Dickinson, W. B., Leech, N. L., and Zoran, A. G. (2009). A qualitative framework for collecting and analyzing data in focus group research. International Journal of Qualitative Methods 8, pp. 1–21. doi:10.1177/160940690900800301.

Peters, S. (2004) Educating the Civic Professional: Reconfigurations and Resistances, Michigan Journal of Community Service-Learning 11, pp. 47–58.

Quigley, B. (2000) The practitioner-research: a research revolution in literacy?, Adult Learning 11, pp. 6–8.

Sadler, K., Akister, J. and Burch, S. (2015). Who are the young people who are not in education, employment or training? An application of the risk factors to a rural area in the UK. International Social Work 58, pp. 508–20. doi:10.1177/0020872813515010.

Schoon, I. and Heckhausen, J. (2019). Conceptualizing individual agency in the transition from school to work: A social-ecological developmental perspective. Adolescent Research Review. Springer. https://doi.org/10.1007/s40894-019-00111-3

Shore, J. and Tosun. J. (2019). Assessing youth labour market services: Young people's perceptions and evaluations of service delivery in Germany. Public Policy and Administration 34, pp. 22–41. doi:10.1177/0952076717722192.

Tanner, J. L. and Arnett, J. J. (2009). The emergence of emerging adulthood: The new life stage between adolescence and young adulthood. In Routledge Handbook of Youth and Young Adulthood: (pp. 39–46). Taylor and Francis. https://doi.org/10.4324/9781315753058

Theodori, A. E. and Theodori, G. L. (2015). The influences of community attachment, sense of community, and educational aspirations upon the migration intentions of rural youth in Texas. Community Development 46, pp. 380–91. doi:10.1080/15575330.2015.1062035.

Tiraieyari, N. and Krauss, S. E. (2018). Predicting youth participation in urban agriculture in Malaysia: Insights from the theory of planned behavior and the

functional approach to volunteer motivation. Agriculture and Human Values, 35, pp. 637–50. doi:10.1007/s10460-018-9854-8.

Unay-Gailhard, İ., Bavorová, M., Bednaříková, Z., and Ponkina, E. V. (2019). I don't want to work in agriculture!' The transition from agricultural education to the labor market in rural Russia. Rural Sociology, 84, pp. 315-349 doi:10.1111/ruso.12245.

Vogt, E. E., Brown, J., and Isaacs, D. (2003). The art of powerful questions. The world cafe. Mill Valley, CA: Whole Systems Associates. doi:10.1016/j.neuroimage.2010.02.064

Whitehead, J. (1993) The Growth of Educational Knowledge: Creating Your Own Living Educational Theory. Hyde, Bournemouth.

Table 1. Frequencies of themes and subthemes in focus groups with youths

| **Main themes**[1 2] | *fi* | **Sub-themes**[1 2] | *fi* |
|---|---|---|---|
| Improvement of vocational training experiences in ecoagriculture | 47 (52.81%) | Training activities organization | 14 (29.79%) |
| | | Improving knowledge | 12 (25.53%) |
| | | Quality of ecoagriculture products | 10 (21.28%) |
| | | Work opportunity | 4 (8.51%) |
| | | Social support | 4 (8.51%) |
| | | Financial incentives | 3 (6.38%) |
| NEETs negative representations about agriculture | 32 (36.96%) | Heavy and dirty job | 8 (25.00%) |
| | | Low income | 8 (25.00%) |
| | | Lack of motivation | 7 (21.88%) |
| | | Lack of knowledge | 6 (18.75%) |
| | | Masculinization | 3 (9.37%) |
| NEETs positive representations about agriculture | 10 (11.23%) | Savoring agriculture activities | 5 (50.00%) |
| | | Gender equality | 3 (30.00%) |
| | | Family positive perceptions | 2 (20.00%) |
| Total | *n* = 89 | Total | *n* = 89 |

Note: 1. Frequencies based on the main researcher codes. 2. Percentages for each subtheme are calculated regarding the total number of codes within each theme.

Table 2. Distribution of themes by focus groups

| | **Group 1** | **Group 2** | **Group 3** | **Group 4** | **Group comparison** |
|---|---|---|---|---|---|
| | *fi* (%) | *fi* (%) | *fi* (%) | *fi* (%) | |
| Negative representations about agriculture | 5 (27.78%) | 9 (36.00%) | 9 (39.10%) | 9 (47.80%) | $\chi 2$ (6,1) = 1.02, $p$ = .99 |
| Positive representations about agriculture | 2 (11.11%) | 3 (12.00%) | 2 (13.10%) | 3 (8.70%) | |
| Improvement of vocational training experiences in ecoagriculture | 11 (61.11%) | 13 (52.00%) | 12 (47.80%) | 11 (43.50%) | |
| Total number of units of meaning ($n$ = 89) | 18 (19.31%)[1] | 25 (28.41%)[1] | 23 (26.14%)[1] | 23 (26.14%)[1] | |

Note. 1. Percentages for each group are calculated regarding the total number of codes across groups.

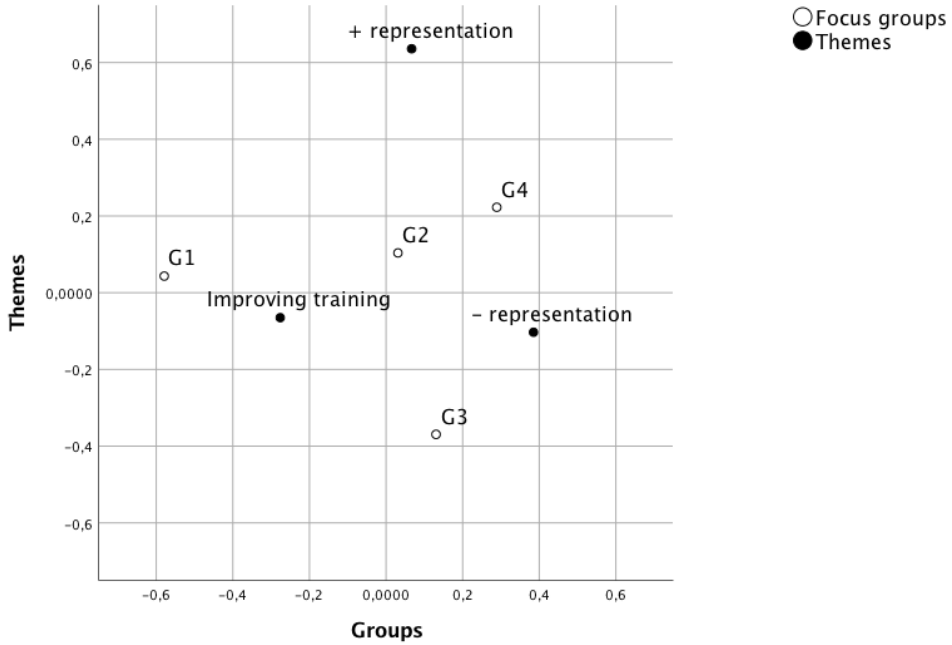


Figure 1. Correspondence analysis

Table 3. Comparison between groups regarding the number of utterances by participant

| | Group 1 | Group 2 | Group 3 | Group 4 |
|---|---|---|---|---|
| Number of utterances by participant[1] | | | | |
| Participant 1 | 10 (12.99%) | 24 (35.30%) | 18 (39.13%) | 18 (24.66%) |
| Participant 2 | 35 (45.45%) | 8 (11.76%) | 16 (34.78%) | 17 (23.29%) |
| Participant 3 | 26 (33.77%) | 18 (26.47%) | 10 (21.74%) | 17 (23.39%) |
| Participant 4 | 6 (7.79%) | 18 (26.47%) | 2 (4.35%) | 21(28.77%) |
| Total number of utterances ($n$ = 264)[2] | 77 (29.17%) | 68 (25.76%) | 46 (17.42%) | 73 (27.65%) |

Notes: 1. Pearson chi-square tests comparisons regarding the distribution of utterances by participant did not reveal differences between any pair of groups; 2. Percentages for each group are calculated regarding the total number of utterances across groups.

Table 4. Comparison between groups regarding the level of consensus in interaction sequences

| | Group 1 | Group 2 | Group 3 | Group 4 |
|---|---|---|---|---|
| Level of consensus[1] | | | | |
| Disagreement | 1 (4.55%) | 7 (29.20%) | 2 (9.52%) | 2 (8.30%) |
| Partial agreement | 2 (9.09%) | 6 (25.00%) | 11(52.38%) | 6 (25.00%) |
| Agreement | 19 (86.36%) | 11(45.80%) | 18 (85.71%) | 16 (66.70%) |
| Total number of interactions sequences ($n$ = 91)[2] | 22 (24.18%) | 24 (26.37%) | 21 (23.08%) | 24 (26.37%) |

Notes 1. Pearson chi-square tests comparisons regarding the distribution of consensus codes across groups did not reveal differences between any pair of groups; 2. Percentages for each group are calculated regarding the total number of interaction sequences across groups.

Table 5. World-café sessions proposals by stage of the training package: Mentions across groups and total number of mentions

| **Stages** | **Areas of improvement** | **Number of sessions** | **Total number of mentions** |
|---|---|---|---|
| Preparation | Outreach | 3 | 11 |
| | Coordination | 1 | 1 |
| | Motivation | 1 | 1 |
| | Scholarships | 1 | 1 |
| Selection | Exploration | 3 | 12 |
| | Interviews | 3 | 7 |
| | Target groups | 1 | 1 |
| Training implementation | Curricular organization | 3 | 17 |
| | Duration | 3 | 5 |
| | Schedules | 2 | 4 |
| | Apprenticeships | 2 | 3 |
| Dissemination and assessment | Dissemination of results | 3 | 14 |
| | Closing ceremony | 2 | 2 |