European Research Studies Journal
Volume XXIV, Issue 4, 2021

pp. 141-156

The Specificity of the Activity of Educational Farms in Poland

Submitted 02/09/21, 1st revision 22/09/21, 2nd revision 11/10/21, accepted 15/11/21

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Abstract:

Purpose: *The study's subject was a poorly recognized and relatively new initiative in the Polish countryside, the educational farms. The purpose of the work is to present the essence of educational farms and the idea of their creation and familiarize the functioning of farms associated with the National Network of Educational Farms.*
Design/Methodology/Approach: *We used the survey technique in the research. We sent the questionnaire to the owners of all educational farms in Poland. We received a return from 79 farms.*
Findings: *The main motive for establishing an educational homestead was the desire to arouse interest in the specificity of living and working in the countryside and rural folklore and traditions. The most important benefit was the income and the pleasure of working with children. The difficulties mainly were the lack of funds for establishing and developing an educational farm. The most frequently implemented goal was an education in the field of environmental and consumer awareness as well as the cultural heritage of villages. The participants of the classes were mainly children of pre-school and school-age. Classes on the cultural heritage of the countryside and arts and crafts enjoyed the greatest interest.*
Practical Implications: *The presented results may be an inspiration and a valuable hint for farm owners who are considering or are at the stage of creating/modifying an educational farm as an undertaking to diversify their agricultural activity.*
Originality/value: *The presented issues are very rarely undertaken in research. Existing studies were very general and not very detailed or were undertaken on a small research sample.*

Keywords: *Educational farm, village, agriculture, farm, innovations, multifunctional development.*

JEL classification: *O13, Q13.*

Paper Type: *Research article.*

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1. Introduction

"*We are a school which is not a school everyone knows. Nature constitutes the school building, and the classroom is a field, a meadow, a forest, a cowshed. Our teachers are plants, animals, and people living on a homestead*".

Schule auf dem Bauernhof, 2002

The concept of multifunctional rural and agricultural development, which has been implemented in Poland since the 1990s, is accompanied by a scientific reflection, bringing to light its various aspects and determinants. In literature, this issue was reflected in numerous scientific publications (Rønningen *et al.,* 2012; Douwe van der Ploeg *et al.,* 2015; Van Broekhuizen *et al.,* 2015; Abler, 2004; O'Cinneide and Cuddy, 1992; Hrabák and Konečný, 2018; Tohidyan Far and Rezaei-Moghaddam, 2019). The embedding of agricultural activity in a specific natural (Osti and Cicero, 2018; Pretty, 2002; Alampi Sottini *et al.,* 2002; Daugstada *et al.,* 2006; Dramstad *et al.,* 2001; Zawisza *et al.,* 2018), social and cultural environment means that farms can perform important educational functions (Blum, 1999; Forleo and Palmieri, 2019; Pace *et al.,* 2014).

However, this sphere of farms' impact is rarely considered in Poland in discussions on agriculture and farms' multifunctionality and not yet well recognized. The topic began to appear with the development of villages and farms' tourist function and the process of specialization of agritourism farms (Ohe, 2018). As research conducted in various scientific centers has shown, the most popular choice of specialization was creating an educational offer for children and youth coming to stay in the countryside (Graja and Spychała, 2007).

The study aimed to recognize and present Polish agricultural farms' educational functions united under the National Network of Educational Farms. In particular, the authors were interested in the following: what were the motives for setting up educational farms in the Polish countryside; what problems accompany the establishment and functioning of educational farms; what benefits schools and farmers achieve from educational farms? The paper also presents the brief characteristics of educational activities on the surveyed farms. The research hypothesis is: educational farms in Poland are becoming increasingly popular. However, the main reason for their creation is not financial, but the hosts' concern for the dissemination of folklore, customs, and rural traditions, as well as familiarizing visitors with the specifics of living and working in the countryside.

2. Literature Review

The educational function of rural and agricultural areas is becoming increasingly important. Farms or agritourism farms are not the only facilities used for its implementation - the entire natural, cultural, and social environment of the village

serves this purpose (Risku-Norja and Yli-Viikari, 2008). The strongest aspect of the educational potential of farms is the natural-agricultural and socio-cultural environment. Educational services based on the potential of an agricultural farm, and therefore a unique technical infrastructure, production and farm activities, skills and the experience of farmers, or local tradition and culture can be considered a relatively new direction of activity in Poland's rural areas. They create opportunities for building positive relationships between the inhabitants of urbanized and non-urbanized areas, and broaden one's knowledge of agriculture, food production, culture, and traditions of the rural environment. Thus they fulfill a broadly understood social mission (Kmita-Dziasek, 2015). The farm's resources provide the basis for organizing educational programs for groups of children and youth, as well as for adults. Their exceptional role is evident in the education of pre-school children and primary school pupils.

In today's urbanized society, more and more children do not have any or have a false idea about villages and farms, the sources of food origin, most often based on what is portrayed in the media. These ideas are often corrected when youth come to an educational farm. Direct contact with the rich agricultural-natural and socio-cultural environment at the farm is also conducive to the holistic growth of a young person (Petroman *et al.,* 2016a). Education provided at a farm benefits both the educational system and the agricultural sector (Jolly *et al.,* 2004). It is an alternative place for schools, diversification, and enrichment of the educational process through programs focused on experience, learning about the rural culture, or the possibility of workshop exercises in various subjects. Classes "outside the classroom" take place by all the requirements of multilateral education. They are not formal, verbal, or force the memory; they are direct, natural, integrated, based on action, creative thinking, and experiencing. Breaking from the classroom-lesson system's everyday routine is also conducive to the integration of class teams (Denek, 2014).

The immense educational opportunities of using the natural, social and cultural resources of Polish villages and agricultural farms, the cognitive and educational values of activities "outside the classroom" as well as the experience of other countries having rich traditions of education on farms (among others "Schule auf dem Bauernhof" - Switzerland, "Schule am Bauenrnhof" - Austria) were the inspiration for the Polish Ministry of Agriculture and Rural Development and Agricultural Advisory Center in Brwinów Branch in Kraków to create in 2011 the National Network of Educational Farms (NNEF) (Sikorska-Wolak and Zawadka, 2016a). It serves the spread of the idea of education on a farm and the promotion of educational farms. The purpose of the network is:

1) to raise the prestige of the farmer's profession and disseminate knowledge about the origin of food,
2) to diversify non-agricultural activities in rural areas,
3) to preserve the cultural heritage of the village.

Every farm that meets the definition of an "educational farm" can participate in the network (Kmita-Dziasek, 2014; Krzyżanowska and Kowalewska, 2015; Raciborski, 2014). According to the proposal approved by the Ministry of Agriculture and Rural Development in November 2011, such facility:

1) is located in rural areas,
2) is run by a village resident,
3) accepts children and youth as part of school programs and extra-curricular activities,
4) possesses and presents farm animals or crops,
5) pursues at least two educational goals out of the following five:
   - education in crop production,
   - education in animal production,
   - education in the field of the processing of agricultural products,
   - education in the field of ecological and consumer awareness,
   - education in the field of the material cultural heritage of the village, traditional professions, handicrafts and folk art.

The educational farm should have farm animals or crops for presenting to groups of children and adolescents welcomed as part of the school and out-of-school programs or available as a tourist attraction for families with children and adults traveling individually. The above objectives can be implemented as the main activity of the farm and as an additional activity, complementing the core activity, e.g., production or agritourism. Natural persons, including individual farmers may implement these goals, but in some cases also organizational entities like companies, cooperatives, rural housewives' groups, or associations (Krzyżanowska and Kowalewska, 2015).

The minimum obligatory technical condition for the implementation of educational activities on the farm is a covered place to conduct classes and provide their participants with access to toilets, as well as meet the security conditions set out by the law (Raciborski, 2014).

The short period of functioning of educational farms in the Polish villages' network causes the research literature about this topic to be impoverished. This phenomenon is still poorly recognized in scientific research (Sikorska-Wolak and Zawadka, 2016b). This fact was an inspiration for the authors of the study to take up the issue of education using the resources of an agricultural farm and village.

3. Research Methodology

In the study, we used primary and secondary sources of research material. The main source of information on the farms' educational activities was studies conducted among their owners. Information on their activities was also obtained by analyzing the content posted on the website www.zagrodaedukacyjna.pl and the surveyed farms' websites. Information materials and expert opinions published by the Agricultural

Advisory Center in Brwinów Branch in Kraków were also beneficial. Own empirical research was carried out in 2018 using a questionnaire, which was disseminated via e-mail. The selection of the research sample was deliberate - the study covered all educational farms in Poland associated with the NNEF (238 facilities at the time of the study). 79 farm owners filled in the questionnaire, which constituted one-third of all such entities in Poland. Therefore the sample can be considered representative, and the presented conclusions can be generalized to all educational farms operating in Poland. The profitest.pl survey portal was used for the research. The questionnaire consisted of 29 questions of various types. We used descriptive statistics, crosstables, Cramer's V and Mann-Whitney U tests for data analysis.

4. Findings and Discussion

4.1 Socio-Demographic Characteristics of the Surveyed People Running Educational Farms and the Specifics of their Farms

Among the surveyed owners of educational farms, there were slightly more women, which accounted for 58.2% of the surveyed group. The respondents' age was quite varied - from 25 to 71 years old. Nevertheless, most of the respondents were mature people - 34.2% of the respondents were aged 50 to 59, and 27.8% from 40 to 49 years old. Young people (up to 40 years old) accounted for 12.7% of the surveyed group, and seniors (over 60 years) constituted 25.3%.

The respondents had a relatively high level of education. Among them, 68.4% had higher education (the average for Poland was 24.3% in 2015) (Rocznik statystyczny 2016), and 27.8% high school education. Our research results coincide with the results of the research conducted by M. Bogusz and J. Kania among 50 owners of educational farms in Poland (Bogusz and Kania, 2016). The high level of education of people running educational farms may result in a better organizational and content-related quality of the educational activity carried out there.

The basis for the functioning of each educational farm is an agricultural holding. They were often small farms - 39.3% did not exceed 5 ha of usable agricultural land (UAL), of which 38.7% was smaller than 2 ha of UAL. Farms from 5 to 20 ha of UAL constituted 35.4% of the total, and over 20 ha of UAL - 25.3%. The largest of them had an area of 130 ha. This is somehow relevant to Ohe (2006) observations, who proved that educational function has no correlation with farm size on the example of educational dairy farms in Japan.

Educational farms were most often created based on agritourism farms (74.7%), that is farms, which also provide tourist services consisting mainly of offering accommodation and meals, and often other attractions. In other EU countries, the percentage of farms of this type seems to be much lower (Kowalska et al., 2016). Among the surveyed farms, the percentage of those specializing in animal and plant production was significant (about 35% each). In large part of them (especially those

smaller ones), agricultural activity was dictated only by educational reasons. About 19% were organic farms, and 10% were garden farms or orchards. As in other EU countries (Kowalska et al., 2016), owners of ¼ of the surveyed entities also conducted additional non-agricultural activities. Among others, they were handicraft and art workshops, home baking of bread, production of dairy products (cheese, yogurts, butter), wicker products, processing of oilseeds and fruits.

4.2 The Motives and Benefits Resulting from Joining the National Educational Farm Network

Almost 60% of the respondents indicated that financial decisions were important to them when deciding to set up an educational farm. Similar conclusions were also reached by Kowalska *et al.* (2016). However, the possibility of interest in the specificity of living and working in the countryside was indeed more important in this case (Figure 1). This is confirmed by the results of research conducted by Bogusz and Kmita-Dziasek (2015).

Figure 1. *Respondents' reasons to create an educational farm and join the National Network of Educational Farms (%)*

Note: *The respondents could indicate more than one answer.*
Source: *Own research.*

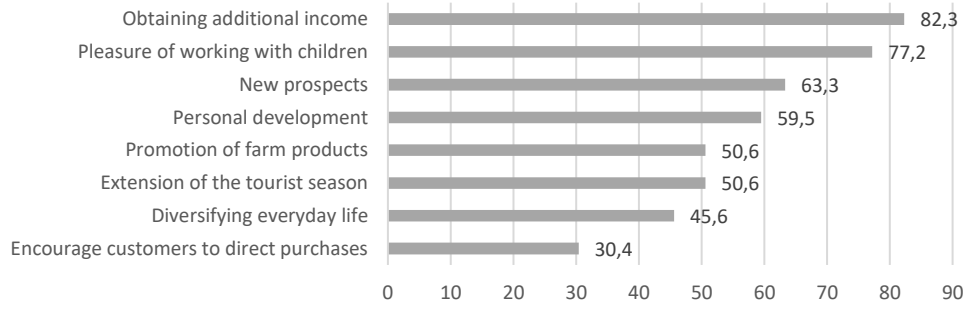
The Mann-Whitney U test results do not show any significant statistical differences between the motives indicated by women and men. The use of Cramer's V indicates that the age of the owners affected the willingness to use unused buildings (p=0.001, V=0.412). Young and middle-aged people very rarely mentioned this motive. The size of farms did not significantly differentiate the motives. People running ecological farms and agritourism farms were particularly interested in disseminating folklore, traditions, and customs (respectively: p=0.011, V=0.286; p=0.019, V=0.264).

Most of society has little knowledge of activities on the farm, the rhythm of life and work conditioned by the changing seasons, the cultivation of plants or animal husbandry; in the case of children and youth living in cities, it is a bizarre phenomenon

(Smeds *et al.*, 2015a). The attitude of owners of educational farms is an open objection to such a situation. The activities undertaken by them are aimed at arousing interest and familiarizing the visitors to their farms and traditional works related to running a farm. Moreover, Polish educational farms owners want to spread the knowledge about the cultural values of rural areas often perceived by visitors even as "exotic" ones.

This could be considered as a great strength of educational farms, providing real benefits for tourists. For example, research conducted by C.H. Huang *et al.* (2014) on visitors of Longjing Tea Garden in China using ASEB and SWOT methods showed, that - according to tourists - getting more knowledge and increasing high-valuable memories was considered as most important strengths in the area of benefits in the analyzed sector of agricultural tourism. What is interesting, the vast part of reasons to create an educational farm in Poland seems to be quite universal in case of global agriculture problems - for example, research of Nagler and Naudé (2017) showed that rural households in sub-Saharan Africa need to deal with surplus household labor and respond to seasonality, what - among others - pushes them into entrepreneurship, mainly in the form of small family businesses. Therefore educational farms in Poland are somehow a similar answer to the identical challenges of the modern market. Moreover, Ohe (2006) noticed that in the case of educational dairy farms in Japan, the retired elderly could become teachers, which will allow better use of the human resources of rural communities. An important element of the study was recognizing the benefits derived by educational farm owners from running such places (Figure 2).

Figure 2. *Benefits derived by the respondents from running an educational farm (%)*



Note: *The respondents could indicate more than one answer.*
Source: *Own research.*

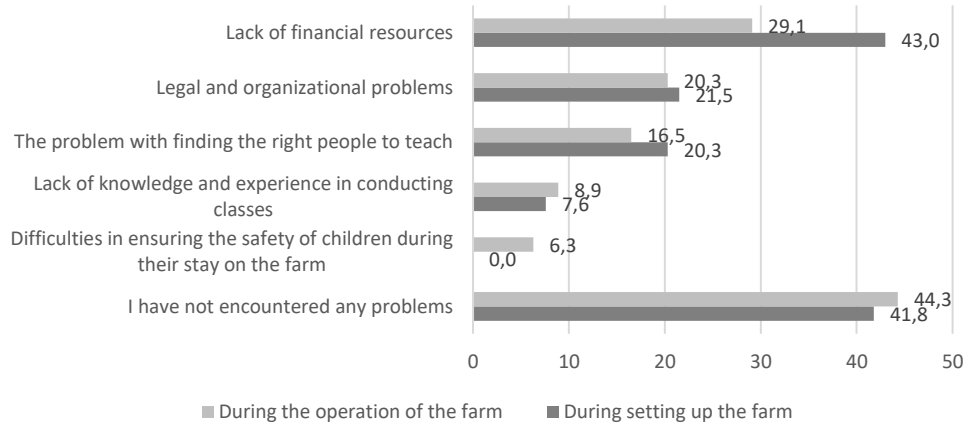
Interestingly, not all respondents perceived additional income as the most important benefit resulting from implementing activities on their farms. Although, as research shows, this may be a significant issue (Scuderi *et al.*, 2015). It was characteristic, especially for people with a slightly lower level of education. Relevant interpersonal benefits were also significant for the respondents. More than ¾ of them stressed the pleasure of working with children (especially older people). The education level had a statistically significant influence on the indications concerning personal development ($p=0.031$, $V=0.297$). Since 74.7% of the surveyed farms were

agritourism farms, it was also important for the respondents to extend the tourist season. This problem also was observed by Petroman *et al.* (2016b), who suggested a wide thematic offer for educational farms, not only for every season but even month, providing attractions connected with farm year life cycle.

4.3 Difficulties During Establishing and Developing an Educational Farm

The most frequently indicated problem that respondents experienced (both when establishing and running a farm) was the lack of financial resources (Figure 3). This problem was more often signaled by people with lower educational levels, younger people, and small farm owners.

Figure 3. *Problems encountered by respondents when setting up and running an educational farm (%)*



Note: *The respondents could indicate more than one answer.*
Source: *Own research.*

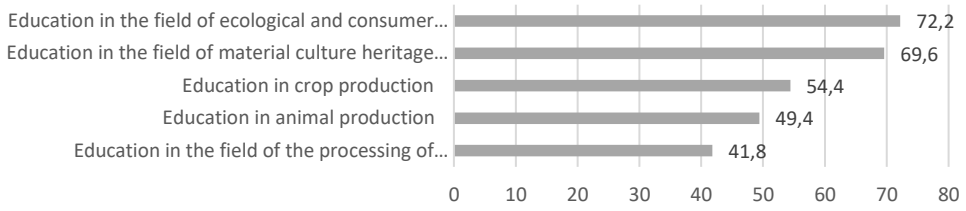
A quite frequently indicated problem at both stages of activity included legal and organizational issues. It should be remembered here that both the term "educational farm" and "agritourism" have not been defined in legal regulations so far, and probably there will not be such a separate definition. Establishing formal and legal obligations related to running such a project means that the interested parties analyze their situation and adapt to the relevant laws and legal requirements. Such problems were more often signaled by people with lower educational levels, as well as older people.

Another quite frequently indicated problem was finding the right people to conduct the classes. In over 40% of the surveyed farms, people from outside the farm are involved in conducting the classes. The selection of such people is a key issue. The problem in this area was slightly more frequently reported by younger people and owners of smaller farms.

4.4 Educational Activity in the Surveyed Farms

The most frequently pursued goal on the surveyed farms was an education in developing ecological and consumer awareness, as well as the material cultural heritage of the village, traditional professions, handicrafts, and folk art (Figure 4). This coincides with the observations of Kowalska *et al.* (2016). It is worth emphasizing that it contributes to the cultivation and preservation of these values from oblivion.

Figure 4. *Educational objectives implemented on the surveyed farms (%)*

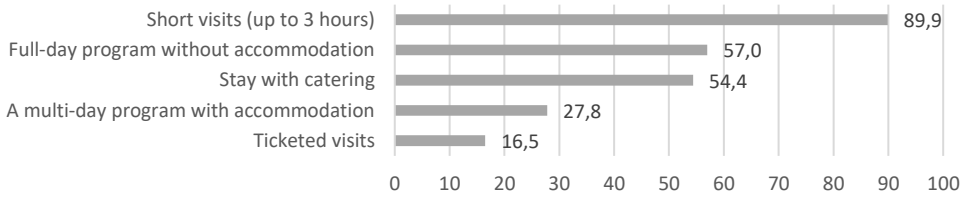


Source: *Own research.*

However, the least frequent activities were related to the processing of crops - perhaps this subject is more difficult to prepare and implement. In the homesteads studied by T. Mitura and M. Buczek-Kowalik in Podkarpacie (2016) this subject was the most popular. It is also worth mentioning here that farm specialization had an impact on the objectives pursued. Organic farms much more often pursued the objectives of environmental and consumer awareness ($p=0.042$, $V=0.229$). Research conducted on a large group of Polish farms by A. Wąs et al. (2021), recognizing factors determining farmers' participation in agri-environmental schemes, proved that less specialized and well-equipped farms with higher non-farm income in the household are more interested in pro-environmental actions. Furthermore, educational farms may be considered an example of such objects, explaining a relatively high level of interest in ecological topics.

The most frequently offered (and the simplest in implementation) organizational form of educational activity was short visits lasting up to 3 hours (Figure 5).

Figure 5. *The organizational form of the offers of educational farms run by the respondents (%)*



Note: *The respondents could indicate more than one answer.*
Source: *Own research.*

The low popularity of several-day stays may be connected with the necessity to meet the requirements related to organizing children's and adolescents' rest, which requires providing safe conditions of stay and proper guardian care, particularly the employment of appropriately prepared staff with specific permits. The owners of educational farms based on agritourism farms more often offered their guests a stay with catering (p=0.043, V=0.227).

4.5 Participants of the Classes and their Preferences in the Opinion of Farm Owners

When creating the offer of classes on educational farms, it is important to recognize which recipient groups we want to target. Therefore, in empirical research, the profile of participants of educational activities was recognized, and the results of the research are presented in Table 1.

Table 1. *Participants of the classes conducted on educational farms by attendance (%)*

Participants in educational classes	Participation in educational classes					
	never	very rarely	rarely	sometimes	often	very often
Pre-school children	2.5	15.2	8.9	15.2	25.3	32.9
School-age children (primary school)	0.0	5.1	5.1	10.1	34.2	45.6
School-age adolescents (middle school, high school, students)	11.4	21.5	19.0	32.9	15.2	0.0
Adults	12.7	20.3	20.3	21.5	16.5	8.9
Families with children	11.4	16.5	16.5	20.3	24.1	11.4
Organized groups	2.5	3.8	11.4	13.9	22.8	45.6
Special groups	30.4	21.5	13.9	12.7	13.9	7.6

Note: *The ratings were made on a scale from 1 - never to 6 - very often.*
Source: *Own research.*

The most frequent participants of the educational activities were school-age children as well as organized groups. This was confirmed by Sikorska-Wolak and Zawadka (2016a) and Sin *et al.* (2018). Ohe (2006) also noticed that the target population for educational farms should mainly be the young who are not experts in farming. The special groups consisted of people with disabilities and seniors. An important element of the research was recognizing the hosts' opinions on the popularity of individual educational programs among visitors. Detailed information on this subject is presented in Table 2.

Education in the field of material cultural heritage of villages, traditional professions, handicrafts, and folk art was the most popular. Classes in the field of environmental and consumer awareness were also top-rated. Analyzing the opinions of the hosts on the interest of guests in specific elements of the educational offer, it should be stated that contact with farm animals, outdoor games, learning about the regional cuisine and the opportunity to taste regional dishes as well as participation in culinary workshops

were the most preferred. Such a high popularity of animals (direct contact, ZOO) may, in a way, be related to the ideas about the functioning of farms and people's imagination about agriculture. For example, Smeds *et al.* (2015a) proved that more than 80% of Finnish pupils link farms with animals.

Table 2. *The popularity of educational programs among visitors in the opinion of owners of surveyed educational farms (%)*

Educational programs	The popularity of educational programs						
	this program is not implemented on the farm	I have no opinion	very low	low	moderate	high	very high
Education in crop production	30.4	6.3	1.3	6.3	20.3	20.3	15.2
Education in animal production	34.2	6.3	3.8	1.3	8.9	17.7	27.8
Education in the field of the processing of agricultural products	35.4	3.8	3.8	3.8	16.5	17.7	19.0
Education in the field of ecological and consumer awareness	15.2	10.1	3.8	5.1	19	25.3	21.5
Education in the field of the material cultural heritage of villages, traditional trades, handicrafts, and folk art	12.7	1.3	3.8	5.1	15.2	20.3	41.8

Source: *Own research.*

Furthermore, although visiting a farm reduces this imagination, farm animals still hold more than 60% of pupils' associations with such a place. Also, research conducted by Antunes *et al.* (2017), regarding expectations of Portugal consumers of all ages, showed that contact with animals was the 2nd most crucial factor for visiting an educational farm (just after the contact with nature), being very important for more than 36% of respondents.

5. Conclusions

Education using material and non-material resources of rural homesteads and the natural, cultural and social resources of villages is a new promising direction of farm activity, fulfilling a broadly understood social mission. The multilateral nature of the educational impact, including the cognitive, emotional and educational spheres as well as the sphere of action, and the implementation of the educational process in an authentic rural environment, make educational activities on the farm a very effective form complementing the school curricula. Such relation was confirmed in research conducted by Smeds *et al.* (2015b), who compared the effectiveness of classroom and authentic learning environment (a farm) among the group of Finnish pupils. Authors proved that learning at the farm improves understanding and helps in long-term

retention of knowledge, mostly by encouraging pupils and supporting them regarding their different learning preferences.

Moreover, Smeds *et al.* (2015a), in their different study, based on the interesting concept of kids' drawings, also showed that often children have irrational conceptions of agriculture, which change significantly after visiting the farm. Thus, European countries' experience shows that they understood the opportunities of using farms in the education of children and adolescents many years ago, and now are successfully implementing educational programs in rural homesteads.

The research carried out by the authors of the study shows that educational activities conducted on educational farms bring tangible benefits to the farms and schools themselves. Schools gain variety and enrich the learning process - teaching programs focused on practical experience, opening the school, and an alternative education place. On the other hand, for farmers, it is a meeting with future consumers, promoting farm products, the variety and enrichment of a farmer's everyday life, the joy of working with children and teachers, and additional income. The modern approach to education makes the farm an attractive place to conduct classes, integrating theory with practice in many subjects.

Our research allowed us to formulate several conclusions and generalizations:

- The empirical studies conducted by the authors of the study made it possible to characterize the educational farm owner. It is a middle-aged person already possessing professional experience; with a level of education much higher than average in the countryside; motivated by higher-order needs, which is revealed in the motives of undertaking the educational activity and joining NNEF, in which the following are at the forefront: “the desire to arouse interest in the specificity of life and work in the countryside", "the desire to cultivate and popularize the folklore, traditions, and customs of the region", "the possibility of realizing one's passions/hobbies". Therefore, the hypothesis presented at the beginning of the article can be considered confirmed.
- The participants of educational classes held on educational farms are primarily pre-school children and primary school pupils arriving in organized groups as part of the pre-school education program or the curriculum of selected subjects (primary school). The educational programs offered are adapted to the groups regarding the age of their participants.
- Education in the field of the material heritage of villages, traditional professions, handicrafts, and folk creation was the most popular among participants, followed by education in ecological and consumer awareness, and these educational goals were most often implemented on the surveyed farms. This proves that the owners recognize the needs and interests of the participants well and take them into account when creating educational programs.

Educational farms in Poland are still a form of educational activity in the countryside that is not widely known. However, the education provided outside the classroom has,

as previously mentioned, many organizational and educational values and can be an effective complement to early education in pre-schools and education in the classroom-lesson system in schools. However, this requires greater involvement of the management of pre-schools and schools, as well as teachers in initiating contacts and developing cooperation with the active farms in the region. It is also desirable to involve local governments in greater efforts to support the development of educational farms.

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