

Farmer mentoring in Norway– How do different mentoring approaches improve entrepreneurial skills?

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Abstract

Running a small business such as a farm can be a complicated and challenging task, and there is a growing body of evidence on entrepreneurial competences needed to run and develop a farm. Mentoring can support entrepreneurial competences, but how this influences entrepreneurial learning has been explored only to a limited extent. Therefore, two farmer-mentoring programs aimed at supporting farmers' learning and development were studied to identify how the concept of mentoring is incorporated, what kinds of learning are stimulated, and what effects on entrepreneurial learning are found. An analytical model was elaborated based on the functions of mentoring—psychosocial and career-related – complemented with the concept of entrepreneurial mentoring and entrepreneurial skills, to identify outcomes on entrepreneurial learning related to entrepreneurial identity, recognition and acting upon opportunities and growth of the business. Findings indicate that the matching process and the qualities of the mentors differ between the two programs, and they do not fully incorporate the concept of mentoring because they have little focus on helping the mentees to explore options and ideas that they can use to solve their own business issues. In both programs, the production-oriented knowledge and experience are important. In only one of the programs, there is development of entrepreneurial identity.

1. Introduction

There is a growing awareness of the entrepreneurial skills needed to run and develop a farm (Seuneke *et al.*, 2013), i.e. exploit market opportunities and innovate. Professional and management skills are basic requirements for farmers while entrepreneurial skills are essential to create and develop new business activities (Wolf and Schoorlemmer, 2007). Some farmers are more entrepreneurial than others are, but this is not necessarily due to a lack of certain personality traits but rather due to (the lack of) specific competence and experience (Lans *et al.*, 2013). Farmers develop entrepreneurial skills predominantly through a process of learning-by-doing and less through formal education (Vesala and Pyysiäinen, 2008). Lans *et al.* (2013) indicate that to acquire entrepreneurship and business management skills, entrepreneurial learning is important. Entrepreneurial learning recognizes and acts upon opportunities through initiating, organizing and managing the firm in social and behavioral ways (Rae, 2006). The social approach to entrepreneurial learning relates to a context of interacting with other persons,

businesses and others outside the firm. The behavioral part of entrepreneurial learning reflects a manifestation of the learning in the behavior of both the farmer and the farm business. Following ideas from small business-supporting systems from non-agricultural sectors, different kinds of mentoring programs for farmers have been initiated to support farmers and strengthen their entrepreneurship and farm management skills. While there are some papers that report on experiences with mentoring programs aimed at farmers (Klerkx & Leeuwis, 2009; Lans *et al.*, 2013), this earlier work is more dedicated to explaining the set-up of these programs. It is not explicit on the positive and negative effects of such programs. Overall, few in-depth studies have been conducted of the effects on entrepreneurial learning through mentoring programs. This is where the paper aims to contribute. Therefore, we investigate here the effects of entrepreneurial learning from two mentoring programs in Norway. These programs support farmers in developing and exploiting entrepreneurial and farm management skills. The purpose of the study is to explore how these two mentoring programs support farmers' entrepreneurial learning in terms of positive and negative effects.

The research questions are:

- 1) How do two Norwegian farmer-mentoring programs incorporate the concept of mentoring?
- 2) What kinds of learning are stimulated through these mentoring programs?
- 3) How do mentors and farmers perceive effects on farmers' entrepreneurial learning?

2. Theoretical framework

Mentoring has increased in scope and is used in various areas of society (e.g. for enhancing general psychosocial wellbeing, assertiveness in different situations of life) as well as for professional situations. As farmers are urged to become more entrepreneurial, the term of entrepreneurial mentoring (St-Jean & Audet, 2009) suits farmers' situation.

2.1 Defining mentoring in the context of entrepreneurial orientations of farmers

Mentoring is explained as supporting people to manage their own learning to maximize their potential, develop their skills, improve their performance and become the person they want to be (Deans & Oakley, 2006). Workplace mentoring involves a relationship between a less experienced individual and a more experienced person. The purpose is the personal and professional growth of the mentee—the less experienced person (Kram, 1983). Mentoring involves transferring personal experiences of doing business and solving specific problems (Klofsten & Öberg, 2008) from the mentor to the mentee. The mentor should not provide business advice or propose solutions to business issues. Instead, the mentor should help their mentee to explore options and ideas that they can use to solve their own business issues (Kent *et al.*, 2003). Mentoring thus is a dynamic process between a mentor and a mentee. The mentor and the mentee form a reciprocal yet asymmetrical learning partnership (Eby *et al.*, 2007). Pawson (2004) found that the nature of the interaction between mentor and mentee affects the success of the relationship. This calls for a description of the characteristics of the mentoring programs. Elements that describe mentoring include the duration of the mentoring, frequency of interaction, formality of the relationship, matching process, and the qualities of the mentor (Barrett, 2006).

2.2 Effects of mentoring on entrepreneurial learning

It is universal that mentoring results in substantial rewards for mentees (Allen *et al.*, 2004). Kram (1983) identified two types of mentor functions. One is career-related and one is psychosocial.

The career-related support enhances the mentees advancement in the organization and includes the mentor functions of sponsorship, exposure and visibility, coaching, protection, and challenging assignments. The psychosocial support addresses interpersonal aspects of the relationship and refers to aspects of a relationship that enhance an individual's sense of competence, identity, and effectiveness in a professional role. Specific psychosocial functions include role modeling, acceptance and confirmation, counseling, and friendship (Allen *et al.*, 2004).

Farmers are often self-employed, and career advancement in the own organization is not a topic of concern, but is more likely related to the overall development and advancement of the farm business as a whole. This can be the role of the mentoring program—to help the mentee to explore options and ideas that they can use to solve their own business issues (Kent *et al.*, 2003). Wolf and Schoorlemmer (2007) relate entrepreneurial skills to the development and advancement of the farm business by identifying three essential entrepreneurial skills: 1) recognition and realizing business opportunities, 2) developing and evaluating a business strategy and 3) networking and utilizing contacts. These entrepreneurial skills can be a result of the career-related function of the mentoring program as stated by Kram (1983).

The psychosocial effects are related to the development of the mentee's competence, identity and effectiveness in a professional role (Kram, 1985). St-Jean and Audet (2009) introduce the concept of entrepreneurial mentoring involving a supportive relationship between an experienced entrepreneur and a novice entrepreneur to foster the latter's personal development. Taking an entrepreneurial learning approach offers sensible insights into the learning effects of the entrepreneur as a mentee.

Both the psychosocial and the business development functions stated by Kram (1983) are found in Rae's (2006) framework of entrepreneurial learning, which consists of three major themes related to the outcome of the entrepreneurial learning process.

1. Entrepreneurial identity
2. Recognition and enacting of opportunities
3. Growth of business

The psychosocial function of mentoring can stimulate a personal and social emergence of entrepreneurial identity. Rae (2006) states that acquiring entrepreneurial skills and knowledge is not sufficient. The person who begins to act as an entrepreneur is assuming the identity of an entrepreneur.

Recognition and enacting of opportunities are a result of contextual learning in relation to others, which in this case can be a mentor. During these relational activities, individual experiences are related and compared, and shared meaning is constructed.

Fortifying and growing the business is an outcome of the relationship between the farmer and actors in the working environment. The ideas and aspirations of farmers are realized through interactive processes of exchange with others within and around the farm.

In figure one, these theoretical relations are illustrated together with the Rae's (2006) suggested outcomes on entrepreneurial learning.

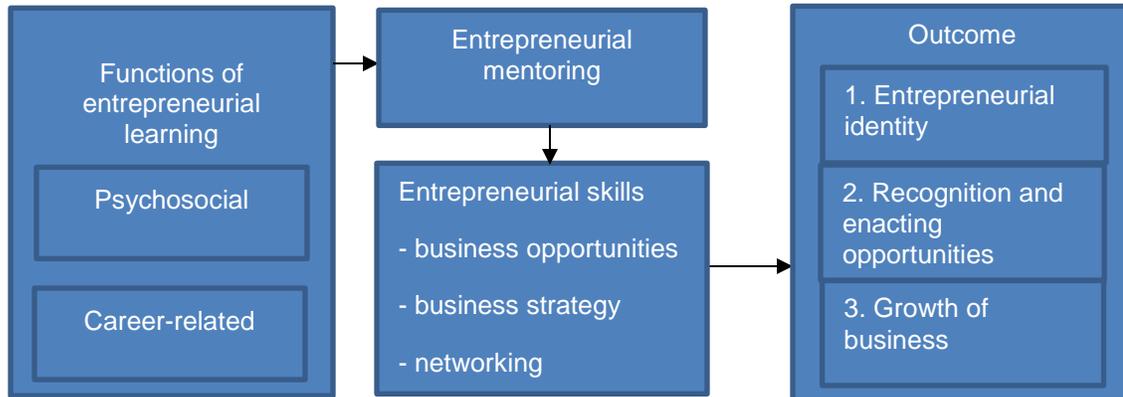


Figure 1: Analytical model

We are interested in the effects of entrepreneurial competence development. This is highly associated with entrepreneurial learning (Seuneke *et al.*, 2013; Lans *et al.*, 2013). Thus, we explore the effects on entrepreneurial learning using the concept of entrepreneurial mentoring (St-Jean & Audet, 2009) and entrepreneurial skills (Wolf & Schoorlemmer, 2007). These are related to the outcome of the learning process based on Rae's (2006) framework to explore how the two mentoring programs fit into these taxonomies of entrepreneurial learning.

3. Case selection and methods

3.1 Case selection

We use a case-study approach, which is preferred when the aim is to understand complex processes and relationships (Yin, 1994). We studied two cases or mentoring programs. The research questions compare these programs according to how they have incorporated the concept of mentoring, which learning is stimulated and the effect on entrepreneurial learning. These two mentoring programs are newly established and they seem to be quite different at first glance.

A partnership of private agricultural companies, public actors and a farmers union in the Mid-Norway region initiated the mentorship program called Competence boost. A procurement cooperative, Felleskjøpet, operates the other mentor program, Young farmer. Further presentation of the mentoring program is a part of the results and describes how these two mentoring programs incorporate the concept of mentoring.

3.2 Methods

We collected data from five mentor–mentee pairs in Young farmer. We joined three meetings between a young farmer and a mentor. We first interviewed the mentor, and observed the meeting between the actors. Afterwards, we interviewed the mentor and the farmers separately.

We also interviewed two other farmers in the program separately. Both these mentees had mentors who were interviewed earlier. One of the mentees had a mentor for swine production (interviewed earlier) and another mentor for the dairy production, who was interviewed. As a basis for interviewing, we conducted interview guides—one for mentors and one for mentees. The guides covered different topics. We were interested in the program's goals and design as well the interaction and communication between the mentor and the mentee, and also how this facilitates learning. We also developed an observational scheme to assist with mentorship evaluation. Interviews and extensions were tape-recorded and the interviews were transcribed. The two interviews with mentors lasted about 1.5 hours and the one with mentees about 30 to 45 minutes. When choosing mentees and mentors, we tried to gain a variation along dimensions as geography, producer environment, mentors and mentees and investment. All farmers have swine production, and one of them has dairy production in addition.

In the other mentoring program, Competence boost, we selected four of the 16 mentor–mentee pairs for interviews. The farmers had different productions—sheep, dairy and eggs. These interviews were conducted as telephone interviews lasting 20 to 40 minutes. We developed separate interview-guides for the mentors and the mentees to query the mentoring program, the matching process, the need for competence, sharing experiences, and how they practically conducted the mentoring.

In analyzing the data, we used both the interviews of the mentors and the mentees. A qualitative content analysis (Patton, 2005) is a suitable method for data analysis.

4. Findings

4.1 The mentoring programs

Here, the two Norwegian farmer-mentoring programs are presented in terms of their use of mentoring. Core characteristics of the mentoring programs are summarized in table 1. The characteristics are based on Barrett (2006) and are supplemented with a description of the ownership and goal of the program.

Table 1: Elements aimed at describing the mentor programs

	Competence boost	Young farmer
Organization that manages the project	A project with several contributors.	Input sales and output buying cooperative.
Goal of mentor program	More competence among farmers. Increased demand for competence. Increased entrepreneurial attitude.	To secure/improve members performance and to recruit more members
The matching process	The mentee initiates the mentoring and chooses a mentor among farmers he/she know or have heard about. Mentees are motivated by starting a new production or investments.	Felleskjøpet assigns mentors to new, young farmers. Employees in Felleskjøpet (sellers and advisors) are in a pool of mentors.
Formality	Mentee receive funding to pay a small fee to the mentor. A formal agreement including a plan and a timetable are formulated. Discussions are largely governed by the mentee and the mentees demand for answers to questions. The mentor assists with advice and is a discussion partner. Mentee perceives that good advice was worth paying for.	Young, new farmers who becomes member of Felleskjøpet are assigned a mentor free and other gifts and offerings. Structured meetings where the mentor keeps the dialogue. Transfer expert-based knowledge to farmers. The data-program Ingris” supports communication between mentor and mentee within swine-production.
Quality of the mentor	The mentor is an experienced farmer. Competencies were mostly related to farm production or production orientation. No mentor-training program. Sharing of experience in professional network.	The mentors in Felleskjøpet are mainly experts in food concentrates and feeding or sellers. Some have higher education and less experience in swine production when others have practical experience but less education. Some of them are experts and partially covering narrow topics. Mentors sharing their internal network in Felleskjøpet with the mentees.
Duration	One year, may apply for two more years if they show yearly progress.	Three years.
Frequency	Three meetings a year. Additional contact by telephone, mail and visits	Two visits a year. Additional contact by telephone, mail and visits

Competence boost was a project initiated by a regional partnership in Mid-Norway. The project ran from 2013 until the end of 2015. The project initiated different competence efforts for farmers and advisors in which one of them was farmer mentor.

Young farmer is a mentoring program developed by Felleskjøpet—a big sales and procurement cooperative in Norway. The aim of the cooperative is to strengthen the economy of farmers in the short and long run (www.felleskjopet.no).

The objective of transferring knowledge to the mentees is common in the programs, but the knowledge is obtained from different sources. Mentors in Young farmer have a greater focus on disseminating formal knowledge, while in Competence boost the mentees have the initiative and ask the mentors for both their knowledge and experience. The recruiting and matching routines cause different motivations for the mentees to take part in the program. Not all mentees in Young farmer are aware of taking part in a mentor program and one mentor told that he was very careful using the name “mentor” when facing young farmers because he was afraid of bypassing the mentee. Mentees in Competence boost are self-recruited, proactive and motivated to take part.

4.2 Learning taking place in the programs

This section presents results regarding the type of learning that results from the different mentoring programs. Table 2 shows the elements of learning expressed in the two cases, structured according to the functions of entrepreneurial learning as well as psychosocial and career-related learning (Kram, 1983). The psychosocial functions are related to St-Jean and Audet’s (2006) term “entrepreneurial mentoring”. The career-related functions are related to entrepreneurial skills: business opportunities, business strategy and networking.

Table 2: Elements of learning

	Entrepreneurial mentoring	Entrepreneurial skills
Competence boost	I have to be active to develop Share network Holistic approach Support each other Enjoy social contact	Sharing formal knowledge and experiences Learning to work smart–logistics in production Learning to avoid failures
Young farmer	Build trust Mentor must be careful not to be too challenging	Learning how other farmers find solutions Learning how to improve results beyond feeding Gain new knowledge about feed combinations followed by a trial and error processes to test new feed Sharing network with other persons in Felleskjøpet

Entrepreneurial mentoring

According to St-Jean and Audet (2006), entrepreneurial mentoring involves a supportive relationship between an experienced entrepreneur (mentor) and a novice entrepreneur (the mentee) to foster the latter’s personal development. This is a part of the psychosocial function of mentoring (Kram, 1983). The mentees in Competence boost experience entrepreneurial mentoring. One mentee stated that to develop he had to actively search for solutions and ask questions. Another pointed to networking in the sense of learning how to use the network of different experts to make his own progress. The mentors have not only shared their networks but also contributed to the mentees’ networking skills. One mentee stated that the mentor managed to put together all the advice received from others in a holistic approach. We also found elements of social support including group support and enjoying the social contact. Mentees reported that the mentoring program is a social event. Mentoring empowered both persons and created fellowship. One mentor stated that when they were only two persons it was possible to be more private indicating that they could go beyond the enterprise and over to the personal area. Taking part in a mentorship program could stimulate further development of entrepreneurial identity for the mentees.

The mentees in Young farmer had fewer signs of entrepreneurial mentoring. The concert example reported was emerging trust in the mentor-mentee relationship. One mentor stated that as a mentor he had to be careful to not be too challenging.

Entrepreneurial skills

We did not find any examples of learning related to business opportunities. There were several examples of business strategy and some examples of networking (table 2).

Competence boost focuses on knowledge related to running a production in accordance with how to organize a smart working flow, and how to avoid costly failures. Mentees who were about to start new productions asked questions like: How do you conduct this function in your production? In this case, both the mentor and the mentee had practical experiences, and they could share experience with each other and reflect together. Such discussions offer learning to both persons. As one mentor said—I always learn something from the others. The knowledge transfer spans from formal knowledge to practical daily work. Some of the mentors took part in the startup of the production by working together with the mentee. Working together is an arena for transferring tacit knowledge.

In Young farmer, the focus is on better performance during production that rests on knowledge transfer from mentor to mentee. They also learn about Felleskjøpet and what the cooperative can offer. In our example, the farmers contacted the mentor if they had questions. According to farmers, learning is mainly about feeding the animals. The mentors in Young farmers reported that the mentees behave very differently. Some are very keen on learning and performing, and others are more reluctant to change. The mentor tries to adapt to the farmers' needs and goals, but also challenges them in some areas. One of the mentees told that he knew that it was smart to take part in professional meetings, but he had not prioritized going.

The mentors also learn. In Young farmer one mentor stated, "I think I learn something every day", and another "There are always farmers that find good solutions. If it is functioning well, we bring it further to the other advisors". One example is from a farmer that wanted another combination of feed. Because of this request, Felleskjøpet developed a new feed for sows based on a new combination of concentrate and this is now under testing. If this functions well, then Felleskjøpet will develop this feed as a part of their assortment.

The mentors shared their networks with the mentees in both programs, but it is not clear if this resulted in networking activities among the mentees.

4.3 Effects on entrepreneurial learning

Rae's (2006) framework for entrepreneurial learning was used to describe the effects on farmers' entrepreneurial learning. The framework consists of three main themes related to the outcome of the learning process—entrepreneurial identity, recognize and act upon opportunities, and growth of the firm.

Entrepreneurial identity

Entrepreneurial identity is developed when the farmer starts acting like an entrepreneur (Rae, 2006). Farmers can be viewed as entrepreneurs because they are self-employed, but this does not mean that they act like one. In Competence boost, the mentees' motivation to attend the mentoring is driven by new production and new investments. This means that prior to the mentoring, they acted in an entrepreneurial way when planning to develop their business. It is not

clear if this is an effect of a prior entrepreneurial learning process. In Competence boost, the mentees reported learning in accordance to entrepreneurial mentoring and effects including opening up to new ideas and stimulation of networking. Development of networking skills may be a prerequisite for exploiting networks opportunities.

The experienced farmer is a role model for developing entrepreneurial identity in Competence boost. In Young farmer, the mentors have a different background and do not represent a role model for developing entrepreneurial identity.

Development of the entrepreneurial identity in Young farmer was not obvious. There were no examples that we could identify. We found trust building between mentee and mentor, but it is not clear if this contributes to entrepreneurial identity. Curious mentees ask questions and search for knowledge. Thus, they behave like an entrepreneur. Reluctant and passive mentees do not get involved in discussions and reflections—they are simply instructed on what to do, and this is more common in Young farmer.

Recognition and acting upon opportunities

Recognition and acting upon opportunities is a result of contextual learning and seems to be at the core of both mentoring programs. Sharing production-oriented knowledge and experiences are found in different ways, from skill-based learning to more entrepreneurial learning. The mentors in Competence boost are experienced farmers and contribute with their experiences solving daily tasks. The experienced farmers seem to be a good partner for discussion and reflection. Mentees report that learning from an experienced farmer is more valuable to avoiding failure costs by doing things right the first time rather than increasing revenues.

Mentors in Young farmers largely have expert knowledge and can transfer this to the mentee. In most cases, the mentor governed the dialog. The mentors also brought in news from Felleskjøpet. As an example, the mentor introduced a new feed that may increase performance. The Ingris measuring system guided and framed the dialog if the mentee did not bring other topics to the discussion. The mentoring is directed at increased performance, but they did not report any concrete examples. The Ingris system—together with knowledge transfer from the mentor—may help the mentees to plan and work more systematically. There seem to be a mix between advices and learning the mentee to solve his own challenges.

Growth of the business

The effects on business development and growth are a function of the mentees' ideas and aspirations, which can be realized due to an interactive process of exchange with the mentors and others (Rae, 2006). In Competence boost the mentoring program has been crucial for starting up a new production and making investments. This may be a result of contextual learning, but we cannot exclude that development of entrepreneurial identity can strengthen the ability to develop the business. The engaged and motivated farmers may be even more motivated and improve entrepreneurial skills while looking for new possibilities, attending new networks, and searching for new opportunities. In Young farmer, we did not find any sign of growth of the business. The mentees' focus on cost avoidance instead of rising the revenues shows little awareness of growing the business.

5. Discussion

This discussion is structured by the three research questions: how do the mentoring programs incorporate the concept of mentoring, what kind of learning occurs and what are the effects on entrepreneurial learning?

Different enactments of the concept of mentoring

Our findings reinforce the observation by Bozeman and Feeny (2008) that mentoring programs vary widely. The differences between the two mentoring programs create different learning conditions for the mentees. This is for example shown through the different ways of assigning the mentors, by free choice or by designation. The mentors in both programs appear competent, and the matching processes are the main difference between the two programs, and this result in different conditions for especially entrepreneurial mentoring and development of entrepreneurial identity. Especially the Young farmer program lacks the characteristics of supporting people to manage their own learning. Hence, if the purpose of mentoring is supporting people to manage their own learning (Deans & Oakley, 2006), it is easier to succeed if the mentee is motivated as we found the mentees in Competence boost to be. Our findings underpin that the matching process including the recruitment of mentees influence the condition for supporting farmers to manage their own learning.

In general, mentors help their mentees to explore options and ideas so that they can solve their own business issues (Kent *et al.*, 2003). In Competence boost, the mentors are experienced farmers. The mentor's behavior will influence the mentee, and the mentor will function as a role model for the mentee because the mentee will identify himself with the mentor. Experienced-based knowledge is valued and combined with formal knowledge in both programs. Our examples show that the mentors and mentees in Young farmer have developed trust-based relationships. The farmers do what the mentor tells them to do according to feeding. This knowledge adaptation does not usually represent a big change in routines by farmers, but it is changing until the farmer is satisfied. In the end, this can result in developing the mentees ability to explore options. In Competence boost, we did not find the same trust building focus—perhaps because the trust was taken care of when choosing the mentor. The characteristics of the mentoring program (e.g. Barrett, 2006) seems to influence the conditions for entrepreneurial learning and should be elaborated as a part of the analytical model.

Hence, as our findings show, the full concept of mentoring is not clearly expressed in any of the programs. The personal and professional growth of the mentee (Kram, 1983) is not fully taken care of in the programs. The Competence boost program has a larger focus on mentoring than Young farmer. This can be related to mentors being experienced farmers and obvious role models and that the mentee having the initiative and setting the agenda. The mentoring process will be shaped by how the mentor perceives his role. None of these programs has any mentor training, and they have to figure it out on their own. Without any instructions and training, the mentors will rely on their experiences and result in different ways of mentoring in accordance to their competence. This illustrates that the term mentoring is introduced not being aware of the crucial purpose of what mentoring is according to explore options (Kent *et al.*, 2003) and manage their own learning (Deans & Oakley, 2006), and indicates the need for mentor-training program before initiating mentoring programs.

Effect on entrepreneurial learning and identity

As our findings indicate, the characteristics of the mentoring program will affect the learning conditions. The foundation of both the mentoring programs is production-oriented learning. The

purpose of Young farmer is production-oriented knowledge transfer similar to a traditional advisory system (Seuneke *et al.*, 2013). Without any training in mentoring, findings indicate that it is difficult to break out of the advisor role for the mentors from Felleskjøpet. Another obstacle is the mentees vague interests in taking part in the mentor program, especially when they do not know much about it. However, entrepreneurial learning is not central, but the programs are related to entrepreneurial skills. This helps mentees to recognize and realize business opportunities in existing production routines. This can hence be seen as contextual learning, where the one-to-one relationship helps disseminate knowledge and share experiences.

In Competence boost, both the mentors and the mentees report learning mostly related to entrepreneurial skills. Two of the mentees stated that the mentoring was decisive in their investment decisions. This is an example of how entrepreneurial skills can strengthen the entrepreneurial identity and help people act like an entrepreneur. Entrepreneurial skills can then affect self-confidence to develop the entrepreneurial identity. The Competence boost program contributes to entrepreneurial identity by empowering the mentee. Here, this can be related to the matching process, where the mentee chose to participate in the program and selected the mentor.

Following the major themes of entrepreneurial learning according to Rae (2006), it is the purpose of mentoring programs to nurture development and to help the mentee explore options and ideas (Kent *et al.*, 2003), and develop mentees' entrepreneurial identity. Developing entrepreneurial identity occurs by entrepreneurial learning (St-Jean & Audet, 2009). However, there are few examples from our findings of entrepreneurial mentoring having effects on entrepreneurial identity. We found the psychosocial functions (Kram 2003) of mentoring being in the shadows of product-orientation. None of the programs explicitly stated the role of mentoring as helping the mentee to explore options and ideas that they could use to solve their own business issues (Kent *et al.*, 2003), though it did happen as discussed in section 4.3. The best examples of real entrepreneurial mentoring are found in the Competence boost program. The self-recruitment of mentees to Competence boost give this mentoring program better condition for stimulating the entrepreneurial identity. Importantly, these mentees have already started to develop their entrepreneurial identity by taking the initiative to take part in the mentoring program.

6. Conclusion

In studying two different mentoring programs for farmers in Norway within the framework of entrepreneurial learning, we found that the mentoring programs differed via several characteristics. The main differences were the mentors' background and competence as well as the programs' design. Mentees in Competence boost chose their mentors from experienced farmers while mentees in Young Farmers are assigned a mentor from Felleskjøpet employees. The matching process and the quality of the mentor in terms of mentoring competences were different and gave different conditions for learning with subsequent differential effects on entrepreneurial learning.

Our study indicates that there seems to be more challenging to facilitate entrepreneurial identity and entrepreneurial skills when there is a too large focus on production improvement in mentoring. Without being fully aware of the intention behind mentoring, it is easy to rest on the traditional way of learning focused on production, and having entrepreneurial learning as a side effect. The core of mentoring as helping the mentee to solve their own business issues (Kent *et al.*, 2003) must be taken care of in designing the mentoring program. To further stimulate entrepreneurial learning, the mentors need training to understand their role as a mentor.

Further research is needed to completely elaborate the understanding of entrepreneurial learning—especially to understand the condition to design a mentor program to cover both the psychosocial and career-related part of entrepreneurial learning in balance with more production related mentoring.

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