

ENVIRONMENTAL INFLUENCE ON LEARNING:  
REFLECTIONS ON AN EXPERIENCE FROM FURTHER EDUCATION  
IN PEDAGOGIC ENTREPRENEURSHIP

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**Abstract:** *Lecturers in higher education in Norway are encouraged to take a researcher's attitude to their own teaching methods to determine what works best. This study looked at what environmental factors are successful criteria for further education courses. The research was based on information from three pedagogic entrepreneurship courses for Norwegian teachers run by the University of Agder in Lesvos, Greece. Questionnaires were sent to all participants. Four additional questions were published in the respective Facebook groups. The participants' evaluation made after each course and the use of their Facebook groups were also studied. The participants emphasized that environment, sharing of experiences, ample and dedicated time to work with the subject, engaged lecturers, and creative tasks were positive factors. The results indicate that the participants had received inspiration, knowledge, and tools to continue using entrepreneurship in their schools. They have created networks that have been very useful.*

**Key words:** further education, pedagogic entrepreneurship, location, environment, course organization.

### Introduction

According to a white paper from the Ministry of Education and Research in Norway (2017), *Quality Culture in Higher Education*, the key to high quality education is one that activates and engages the students as equal members of the academic community. The Norwegian government expects that the academic environment, to a much larger extent, uses teaching methods where the students play an active role. The paper further stated that the quality in higher education does not come about through resolutions passed by the Norwegian parliament or by the government. Higher education institutions must take the largest share of the responsibility. In the white paper, lecturers in higher education were also encouraged to have a researcher's attitude to their own teaching methods to determine what works best. In this article, we will describe three courses in pedagogical entrepreneurship for teachers and the research done on the environmental factors influencing learning.

The official Norwegian report, *The School of the Future—Renewing Subjects and Competences*, highlighted four areas of skills which will be important in the school for the future: subject-specific skills, competence to learn, communication and interaction skills, and participation in exploring and creating (Ministry of Education & Research, 2015). The plan of action paper *Entrepreneurship in Education – From Primary School to Higher Education 2009-2014* (Ministry of Education & Research, 2009) submitted different measures to strengthen efforts in entrepreneurship in education. Universities and university colleges should have, by 2012, shown the learning outcomes with respect to innovation and creativity. The ministry made funds available for further education in entrepreneurship for teachers, and the University of Agder was granted funds for three successive years (2012-2014).

The course, *Entrepreneurship in Schools*, was developed and implemented by the

university (University of Agder, 2012). Entrepreneurship is defined in the Norwegian Strategic Plan as being “a dynamic and social process where individuals, alone or in collaboration, identify opportunities for innovation and act upon these by transforming ideas into practical and targeted activities, whether in social, cultural or economic context” (Ministry of Education & Research, Ministry of Trade & Industry, & Ministry of Local Government & Regional Development, 2006, p. 4). Entrepreneurship can be used as a tool and method to stimulate learning in different ways (Ministry of Education & Research, 2009). The course, offered three consecutive years, gathered teachers from the whole country in a secluded place (Lesvos, Greece) for seven days, followed by a one-day gathering on campus in Norway. The participants did not have to pay course fees, but they had to pay for travel, food, and accommodation. The courses were run at a small and quite simple hotel with lots of Greek hospitality. During the course, the participants lived, ate, attended lectures, worked in groups, and discussed entrepreneurship even when swimming and walking together. They spent the whole week together away from their everyday life. The total cost was approximately the same as a comparative course would cost in Norway.

The main content of the course was how to use entrepreneurship as a learning strategy according to the *Knowledge Promotion Reform* (Ministry of Education & Research, 2006). The course also comprised the teacher’s role in enterprises in schools, models for integrating entrepreneurship, production of action plans for entrepreneurship in the schools, and cooperation with business and industry. Teaching methods were group activities with presentations, entrepreneurship exercises, lectures, and excursions. The students wrote a home exam and received guidance over the Internet. The learning

outcomes of the course were that the students would know what the terms entrepreneurship and innovation mean and imply, produce an action plan for the introduction of entrepreneurship in their school, and be able to use entrepreneurship as a method in education and learning (University of Agder, 2012).

A common feature for these courses was that they received very good evaluations from the participants, and the groups created functioning networks. After having looked at the evaluations, one question presented itself: have the location, surroundings, and duration of the course any influence on the success of the course? In our research, we have examined what environmental factors could be success criteria for further education courses. What happens when people are moved away from their normal workplace for one week and “dropped” in a totally different environment? What happens to the learning outcomes, sharing of experiences, and networking under these conditions?

## Theory

Bandura’s theories about reciprocal determinism, observational learning, and self-efficacy can illuminate some of the mechanisms that take place when people live and study together for a week in a different environment (Kelder, Hoelscher, & Perry, 2015). Reciprocal determinism consists of three elements: personal cognitive factors, behavior, and environment, and they interact with each other (Bandura, 1978, 2009). The change of environment was one of the factors we looked at in this study. There was additionally an aspect of modeling and observational learning in these courses (Bandura, 1971; Kelder et al., 2015). Bandura (2009) stated, “Modeling affects the adoption of new social practices and behavior patterns in several ways. It instructs people about new ways of thinking and behaving by informative demonstration or description”

(p. 285). Observational learning occurs when a person learns new behavior and information by observing others' behavior and the consequences of this behavior (Kelder et al., 2015). Streule and Craig (2016) described that students developed a clear professional identity during a week's field work in geoscience. The students developed the professional language and adequate working methods by working with teachers and fellow students over a longer period. They found that field trips are a powerful tool for effective learning.

According to Bandura (1995), despite other factors, the importance of how much people believe that they can accomplish a task, self-efficacy is the most important issue to change behavior. Because people operate individually and together with others, self-efficacy can be an individual and a social construct. Bandura has examined several studies by other researchers. He observed in their findings that the higher the perceived collective efficacy, the higher the groups' motivational investment in their undertakings, the stronger their staying power in the face of impediments and setbacks, and the greater their performance accomplishments (Bandura, 2000). Even in 2000, Bandura mentioned the revolutionary advances in electronic technologies creating new social opportunities.

Nissley (2011) examined what influence location has on learning. He ascertained that place matters, and his article discussed several aspects of how place affects learning: learning *about* a place, *in* a place, *from* a place, and *for* a place. Grill (2003) stated that if educators and administrators understood the benefits of certain natural settings, they could and would use them to promote educational programs. Bersch and Lund (2002) found that the environment can act as a catalyst for learning and help create an exciting and productive learning experience. Education studies have shown that time is often a limiting factor for school development (Hargreaves, 1994).

As Hargreaves (1994) said,

Scarcity of time makes it difficult to plan more thoroughly, to commit oneself to the effort of innovation, to get together with colleagues, or to sit back and reflect on one's purpose and progress. How much time teachers get away from classroom duties, to work with colleagues or just to reflect on their own, is a vital issue for matters of change, improvement and professional development. (p. 15)

Another review focusing on writing retreats presented five key benefits of being *in* a place: (a) protected time and space, (b) community of practice, (c) development of academic writing, (d) intrapersonal benefits, and (e) organizational investment (Kornhaber, Cross, Betihavas, & Bridgman, 2016).

Good ideas often emerge round a coffee table or more relaxed settings than offices and classrooms. Brown, Isaacs and the World Café Community (2005) developed the concept World Café where people meet informally to discuss a theme. A World Café session is set up as a café area, and the participants change discussion partners during the session.

## Method

The research was based on information from three courses held in Lesvos, Greece, for Norwegian teachers (2012, 2013, and 2014). Data were collected from three different sources: mandatory evaluations and final reports, a closed-form survey, and the participants' Facebook groups. The evaluations gave us some very interesting answers which led to development of a closed-form survey. The participants commented on the place and time and the possibility to create networks. To get an even better understanding of these answers, we posted some questions in the Facebook groups and looked at activity in the groups. According to Creswell and Clark (2011), this research is an example of mixed

methods where one set of data is used to further explain another set of data. The closed form survey and Facebook activities helped to further explain the evaluation and final reports.

### **Participants**

Applications were received from about 50 teachers for each course. In the application, each teacher had to explain why he/she should be chosen to participate in the course. From these, about 20 teachers were handpicked according to certain criteria to make a nonhomogeneous group. The criteria were as follows: teachers from different parts of the country, from different levels in schools, different sex, motivation, and if possible, two from each school. Some had a lot of experience and engagement in pedagogic entrepreneurship, others had just started, and some needed a boost to continue.

### **Evaluations and Final Reports**

The courses were funded by the Directorate for Education and Training, and final reports were filed to the Directorate. The final reports included both students' and lecturers' reflections on the course. It was mandatory to conduct mid-term or final evaluation of all topics at the university. On the last day in Lesvos, the students were asked to answer anonymously in writing four open-ended questions:

1. What did you especially like about the course?
2. What can be done to improve the course?
3. How many points on a scale from 1 to 10 (10 is best) would you give for (a) learning outcomes and (b) the course in total? and
4. Other comments?

Asking the students to evaluate the course on the last day in Lesvos, we ensured 100% response rate. The students were not given the possibility to discuss their answers. We

summarized the answers from all evaluations to get the main opinion of the students.

**Closed-form survey.** In the autumn 2015, questionnaires were sent to all participants of the courses, about 70 persons, a majority of whom were women. In the introduction to the questionnaire, it was stated that the results of the survey would be used for research. We received answers from 36 persons (51.4%)—11 men and 25 women. The participants' mean age was 49.2 years, and the std. deviation was 10.3. The questionnaire included background questions about age, sex, work, year of attending the course, and how many years they had used entrepreneurial methods in their work. The questionnaire also included some open-ended questions about the location, the quality of the course, and the participants' learning outcomes. The participants were asked how useful they found the course. The participants were asked how useful they found the one-week course in Lesvos. They were also asked about other ways the course could have been arranged to achieve the best learning outcomes: one week on campus, two three-day gatherings on campus, one three-day gathering on campus combined with internet lectures, weekly internet lectures, and traditional lectures on campus. For these questions, the respondents could mark to what level they agree or disagree with the given statements (Befring, 2007). A 7-point Likert scale was used, where 1 is strongly disagree, and 7 is strongly agree. The results were made anonymous.

**Facebook groups.** In every course, the participants have taken the initiative to establish a closed Facebook group and invited the lecturers to be members of the group. We have looked at how the members have used their respective Facebook group during and after the course. To gain a

deeper understanding of the reasons for the success of the courses in entrepreneurship, we posted questions in the different Facebook groups. Answers could be sent as a personal message or an e-mail. The questions were about the location, the length of the course, the lectures, workshops, innovation camps, creating networks, and the effect of the course on colleagues. This data collection was carried out in March 2017, and we got four answers, one on Facebook and three on e-mail. We have compared and extracted the essence of the answers.

### Result and Discussion

From the different sets of data, we see that the answers often coincide. Therefore, we have chosen to present and discuss our results under two themes: external conditions and internal conditions. The

external conditions include location, surroundings, and duration of the course. The internal conditions include lectures, workshops, innovation camp, and networking. Finally, we will mention some strengths and limitations of our study.

### External Conditions

The participants were asked to range how they thought the learning outcomes would be with different organizational forms of the course (Table 1). The data from the questionnaires showed that most of the students thought the learning outcomes would be best with one week in Lesvos, with a median of 7 (74 % marked this alternative). At the other end of the scale, online lectures only, were the least preferred organization form with a median of 2.

Table 1  
*Organization Forms and Learning Outcomes*

	One week in Lesvos	One week on campus	2 gatherings of 3 days on campus	One gathering (3 days) and online lectures	Online lectures only	Traditional weekly lectures
Median	7	4	4	3	2	3

*Note.* Median is based on a 7 pt. Likert scale.

The respondents emphasized that sharing of experiences, ample and dedicated time to work with the subject, engaged lecturers, and creative tasks were positive sides of the course. In the evaluation, several of the participants wrote that it was a very suitable location for a course. Nobody went home after dinner, they talked about entrepreneurship at every meal and even when swimming. The hotel, with the staff included, was a perfect place to run the course. It made the participants relax and be open for learning. Several participants commented on the location, and although the program was busy, they got energy from the beautiful surroundings. The environment worked as a catalyst for learning (Bersch & Lund, 2002)

In the answers on Facebook to the question about the place, the participants say that the hotel was perfect. Everybody was gathered under one roof for one week 24 hours a day away from everyday worries. We do not know what the main reason for applying to the course was – Greece or entrepreneurship. As Nissley (2011) said, we were learning *in* a place; however, very soon, entrepreneurship became the main reason. In one open question in the survey most participants highlighted the content of the course, networking, and sharing experiences. They commented that the location was a bonus. Cold Norwegians really appreciate the sun and warm weather. One of them said, “It makes us more positive.” This way of organizing a course is in line with the findings by Kornhaber et

al. (2016) on protected time and space. As one of the participants expressed,

For me this course has been of immense importance. I sat in Lesvos and thought: What a wonderful place to build networks and to have so many clever people around me who will share their experiences, help me and my school to improve. Here we have a group of motivated, eager to learn, creative, exciting and clever people gathered in one hotel for a whole week, to make one another better.

The participants expressed that one week was an optimal duration for the course and for being away from school and family. One of them said, “The course could not be one day shorter; every day was essential for everything to be digested and absorbed.” Another participant expressed, “I learned more in one week than I think I would have learned in one year with lectures.”

The environment made the participants talk to new people; they listened to new theory; and they took part in actions they normally would not do. All these items had an impact on how they think and react personally. The participants did not know one another, but the environment was conducive to making new friends, and forming new partnerships and support networks (SgROI & Saltiel, 1998). The participants experienced a community of practice: sharing vision, collegial support, mentorship, and social interaction (Kornhaber et al., 2016).

When the participants returned to their home environment, the environment was the same, but their behavior and personal cognitive factors changed, and these factors have the potential to influence the home environment (Bandura, 1978). After returning home one of the participants expressed, “The teaching became more varied, active, and creative. The pupils enjoyed this. They also experienced more

pupil participation.... The school I worked at was positive. Many colleagues showed great interest and wanted me to share my knowledge.”

One important thing we do in the courses in entrepreneurship is to change the environment. Twenty-five different teachers and lecturers were “dropped” for a week in an unknown location. From the answers, we can see that both the location and duration was important for the participants’ learning outcomes. In a shorter course the location would not have had the same impact. Nissley (2011) assumed that *place matters*. The answers we got confirm that for these courses: *place matters*.

### Internal Conditions

The participants were satisfied with the contents of the course: with theory and play in an exciting mix. In the evaluations the participants gave each course a mean score of more than 9 out of 10, for both learning outcomes and the course in total. The course started with an innovation camp to make the participants get to know one another; they got the same experience as their own students do when they participate in an innovation camp. Activities and concepts were not just talked about, the participants had to be active. In the evaluation of the courses, the participants expressed satisfaction with having experienced an innovation camp. They built up confidence to guide their own students through a similar experience. Kornhaber et al. (2016) mentioned confidence and motivation as part of the intrapersonal benefits.

The participants saw models that were interesting for them because the models, the other teachers, and the lecturers, had accomplished tasks in the field they were interested in (Bandura, 1971; Kelder et al., 2015). According to Heaney and Viswanath (2015), models that have the strongest

impact are those that have similar characteristics to themselves. During the week at Lesvos the participants also got to know the models personally, and their identity as entrepreneurship teachers was consolidated in the same way as Streule and Craig (2016) experienced identity development during field trips.

As a part of the course, the participants got time to develop an action plan for entrepreneurship for their own school. This activity was thought to be very valuable and useful. At work, there is limited time for creative thinking. Every day has enough challenges. These limitations coincided with the findings of Bersch and Lund (2002) and Hargreaves (1994). The participants were satisfied that they could try out their action plan and write about their results as the exam answer. In this way, they felt that they did something useful instead of just having their knowledge tested.

The participants also mentioned interesting and complementing lectures. They got inspiration, knowledge, and tools to continue using entrepreneurship in their schools, and the course gave them new perspectives of teaching and entrepreneurship.

The survey was distributed 1-3 years after completion of the course. One of the questions asked the participants to decide on the statement: "Today I have a great advantage of having completed the course in entrepreneurship". The 7-point Likert scale, ranged from "a small degree" to a "large extent", was used. The median was seven, which means that the participants continue to experience good benefits of the course even after some years.

Using the networks they have created, they have been able to share experiences and support and help each other. This finding indicates that building relations through meeting and living closely over time,

makes the threshold for using the network after the course lower.

A result of the course has been that several of the participants' students have won prizes in pedagogical entrepreneurship in county competitions, in the Norwegian competitions, and European championships. These awards were posted in the Facebook groups. Some of the participants had never won anything before attending the course. The participants shared plans, encouraged, supported, and congratulated each other on Facebook. The conditions made it possible for the students' self-efficacy and the collective efficacy to improve during the week (Bandura, 2002). It seems that the Facebook groups work as an extension of the week to enhance the collective efficacy. The participants continue to encourage each other and share new accomplishments. As mentioned earlier, Bandura (2000) talked in year 2000 about new technical social opportunities that would expand the interaction despite physical borders.

### **Strengths and Limitations**

All the participants answered the evaluation on the last day of the week in Lesvos. In addition, we also collected data in different ways and at different times. This diverse data collection may be a potential strength of the study as the participants have had a chance to reflect on the course. The course has been run three times in the same location, with the same lecturers, but with different participants. However, the feedback was positive for all three courses.

The study also has some limitations. This course has not been run in another location, so we have no comparison. The participants attended the course in different years, and consequently, the time from attending the course to answering the survey varied. This different time spacing may have influenced the answers.

The authors of this article were teachers at the courses. We got to know the

participants, and we noticed what happened during the week. Therefore, we may not be objective observers. This connection can be both a strength and a weakness.

### Conclusion and Further Research

We believe that environmental factors can have a positive influence in any subject anywhere, not only in entrepreneurship. Our research has shown that the location is an important factor; however, the organization of the courses and being together for a whole week are additional key factors. The participants have developed further as teachers and use pedagogical entrepreneurship as a teaching strategy after the course. They have been sharing their knowledge with one another and with colleagues.

This study indicates that the participants in the courses in entrepreneurship in Lesvos received the inspiration, knowledge, and tools to continue using entrepreneurship in their schools. They emphasized that sharing of experiences, ample and dedicated time to work with the subject, engaged lecturers,

creative tasks, and the location were positive parts of the course. It is difficult to say which factor was the most important for success because we have not run a course with exactly the same content on campus or elsewhere. There is a need for further research on the environmental factors and how to organize further education courses for best learning outcomes. One participant summed up the experience of the course in this way:

You have created more than 20 entrepreneurship teachers, who, full of enthusiasm and engagement, will take this back to 15 schools to spread the happy message. It creates rings in the water. The place is fantastic; the beautiful warm surroundings draw forth the best in us, and happy people learn more. The learning environment was fantastic. The pressure to learn has been heavy, and even when there is no lectures or assignments to do, everybody has constantly been sharing good and less good experiences.

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