



Supporting the emergence of female student entrepreneurs

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Abstract

60% of students at Aarhus School of Architecture (AAA) are women. Yet there are far more male than female students who harbor a desire to become independent. Overall as much as 48% of all students at AAA want to start their own business. Significantly, however, the interest is greatest on second years (60%), while it drops to 35% on the 5th and last year. Among graduates from AAA, the gender distribution remains skewed, since more than twice as many men as women start their own architect or design firm.¹

Q: Ark is a project which promotes entrepreneurship among female students at AAA. Q: Ark intends to activate unused entrepreneurial potential at the AAA and increase the number of female design students who start their own business, during or after completion of study. The aim is that an independent career is made available for all, and not only for groups of particularly resourceful 'born' entrepreneurs, where female students are underrepresented.

This paper will show how enterprising elements of the program can change students' perception of themselves as future entrepreneurs.

Keywords

Entrepreneurship, female entrepreneurship, enterprising, self-efficacy, designers, Faculty of Design, Aarhus School of Architecture, student growth house, knowledge on demand

¹ Kandidatundersøgelsen (2006), AAA, page 43

Introduction: About Aarhus School of Architecture (AAA)

Aarhus School of Architecture (AAA) was founded in 1965, and is a university institution under the Danish Ministry of Culture.

AAA has 750 students and employs 160 employees. Overall 60 % of the students are women. Out of the 750 students around 80 specialize as designers, and in this field, almost 70 % are women. AAA is one of only two Danish Schools of Architecture.

The international accreditation of the AAA has been quality approved by the highest European Standards. AAA offers academic, profession-oriented graduate programs at the highest level of architecture, postgraduate masters as well as and Ph.D. degrees in architectural professional fields.

The graduate and postgraduate programs are based on research at the highest level with the aim of continuously classifying training, professional practice and architectural interdisciplinary integration. This research is carried out in cooperation with internationally highly acclaimed institutions such as the Royal Melbourne Institute of Technology (RMIT), Melbourne, Australia, Harvard, USA, IFU in Paris, France and the Aalto University, Helsinki, Finland among many others.

Aarhus has 250.000 inhabitants, and is the second largest city in Denmark.

The city of Aarhus has a very high concentration of architect- and design studios. In fact, the city of Aarhus has one the highest concentration of architects and designers in the city area in the world.

Entrepreneurship at AAA and close collaboration with external partners

It is part of the core strategy at AAA to strengthen networks and collaboration with external partners e.g. industry, companies and organizations. This is partly to promote customer and cooperative relations in ensuring the quality of the education, and partly to qualify the learning situation with real life experience and the creation of real opportunities.

It is also a key aim of the School of Architecture to take responsibility for ensuring candidates from AAA the opportunity for jobs and self employment, bearing in mind that female candidates from AAA have a relatively higher risk of unemployment than male graduates. In Denmark, statistically, +/- 75% of the unemployed architects and designers are women.²

Self-employment, or the possibility to be partly self-employed, greatly expands the variety of job possibilities for students from AAA, enabling them to design their own work life, rather than just having the option of getting employed.

For more than a decade AAA has held a variety of courses in innovation and entrepreneurship, both addressed at students and teachers. In the 2009/10 academic year were offered 4 courses in entrepreneurship at AAA, and 54 % of students participated in the courses. AAA is the educational institution under the Danish Ministry of Culture, which offers the highest number of courses in entrepreneurship – and also the educational institution where the highest percentage of students take part in these courses.

² Kandidatundersøgelsen (2006), AAA, page 39

Ark:Idea and 'Knowledge on demand'

For the last 3½ years AAA has run a student growth house Ark:Idea, where students have participated with their own nascent entrepreneurial business. The first two years of developing and running the growth house, was founded by the Danish Enterprise and Construction Authority. Ark:Idea has proven to be a success, and up to now 114 students have taken part in this facility, and 50 % of these have been women. This means women are still underrepresented in Ark:Idea, compared to the gender distribution at AAA as a whole.

Many of the students, who have participated in Ark:Idea, have started their own business since. What we consider to be Ark:Idea's main result, however, is that all of these students have experienced a considerable expansion in their own ability to act out, their self- efficacy.³

Our didactic focus in Ark:Idea is based on a concept we call 'Knowledge on Demand'. This concept aims at giving students experience with interacting with the real world in practice, rather than learning about entrepreneurial disciplines on a theoretical level. During the first year of Ark:Idea, we learnt that too much entrepreneurial knowledge overwhelmed them. In fact, it inhibited their ability to act out, thus reducing their experience from acting out. We learnt that just enough knowledge, provided at just the time when it is needed, gives good leverage to the students' enterprising behavior. By putting 'Knowledge on Demand' as a framework, the new knowledge becomes relevant knowledge for the individual. We see the students transform their knowledge into concrete action, rather than hold an abstract knowledge that takes up space and energy at the expense of working with their nascent entrepreneurial business. This learning concept has proven very conducive for students' enthusiasm and self-efficacy.

They gain confidence and get the urge to develop and mature their business ideas in interaction with advisors, mentors and external collaborators. As they interact with the real world and gain enterprising experience, they build a new enterprising self image revolving around increasing self-efficacy.

Many students, particularly female students, also report that they experience themselves as more professional, after taking part in Ark:Idea, altering their self image, and in a way making them more focused and effective as students. Through interviews with female students who participated in Ark: Idea, we have formed some ideas of the barriers to entrepreneurship, which is prevalent among female students. These ideas are contained in the recommendations, which are a result of a more extensive mapping of female barriers to entrepreneurship, SPRING and METASPRING (see later).

Relatively, more designers than architects have participated in Ark:Idea, estimated half of the students who have participated, are design students, a rather large number considering design students represent only 10 % of the total number of students at AAA. The relative over-representation of designers who harbor a desire to become independent, is the reason we have chosen the design faculty as a testing ground for the integration of entrepreneurial learning elements, as in the Q:Ark project.

The integration of entrepreneurship in the education, as an extra enterprising dimension to enrich and expand the discipline-specific learning, is the next step at AAA. Simultaneously, we assume that the integration of entrepreneurial elements is a way to 'reach' those last female students who represent an unused entrepreneurial potential. Since many women do not perceive themselves

³ Bandura, A (1997): Self-Efficacy: Toward a unifying theory of behavioral change, *Psychological Review*, 84, p.191-215

as having entrepreneurial characteristics, these tend to be dominated by male archetypes, a lot of these women will not find out about their entrepreneurial potential by themselves. We will need to unveil this potential to them by integrating entrepreneurial elements in the education.

SPRING and METASPRING projects

To investigate why women are proportionally underrepresented among student entrepreneurs, we launched the following 2 parallel projects in cooperation with The Royal Danish Academy of Fine Arts and Copenhagen Business School along with representatives from 4 other Danish student growth houses. Both projects were funded by the Danish Secretariat for the Student Growth Houses, and were executed during 2010.

The SPRING project consisted of 3 1-day workshops with altogether 22 female student participants, primarily from the two Danish schools of architecture, Copenhagen Business School and the University of Copenhagen. They were all relatively new to acting and thinking entrepreneurially, and were encouraged to discuss and express their individual barriers and incentives for becoming entrepreneurs. The SPRING project describes the general experience gathered during workshops held within the framework of SPRING, including the participants own experience of participating in workshops, themes they have experienced themselves, convictions, resources and obstacles.

Whereas the SPRING project was situated in the core of our experience, METASPRING was a learning-related meta-perspective, with the purpose of reflecting and verifying the experience gathered during SPRING on the basis of a large critical volume gathered from several fields of study and several educations.

The participants in METASPRING were:
Merethe Kruse, Aarhus School of Architecture
Ida Adler Olsen, Copenhagen Business School
Pernille Skov, The Royal Danish Academy of Fine Arts
Lone Stubdrup, University of Aarhus
Marie Rollof Christiansen, University of Copenhagen
Peter Ottesen, University of Copenhagen
Jesper Nørskov, Business Academy Aarhus
Margrete Bak, Solo Job design

SPRING and METASPRING recommendations

The produce of the SPRING/METASPRING double project was a list of recommendations to promoting female entrepreneurship, representing an interpretation of the experience gathered within the framework of our respective student growth houses as well as the project SPRING. The recommendations are consequently not based solely on empirical analysis but also on qualitative statements and feedback from participating students, they are our best possible interpretation of the reality we encounter in the student growth houses.

The target group for the METASPRING recommendations are:

- Employees and decision makers in student growth centres / “incubators”
- Organisations / institutions that work to further (female) entrepreneurship at higher educations
- Educational establishments that aim at promoting (female) entrepreneurship.
- We only address political decision makers to a lesser extent.

Based on the experience from SPRING, we recommend the establishment of a space for learning where participants are allowed to experiment, receive feedback, receive support and where students are given a push forward. Pushing and supporting should be weighted equally. We are of the opinion that this learning can be directly observed in the form of an increased confidence to act and an ability to create and use a wider range of opportunities. On a deeper level there is also an expanded identity with regards to entrepreneurship; 'I now see myself as a person who is able to ...'

It is most significant that the range of opportunities is widened by using self-selected stakeholders. The attitude should preferably be one of openness towards the fact that many developments are possible, and one should avoid attempting to control the construction of activities taking place within the learning environments to too great an extent.

Knowledge is made available in cases where lack of knowledge creates fear and obstacles. Knowledge can also be made available in the form of a structural tool-box, i.e. aids for setting priorities.

In general, we want to establish a learning environment which supports a state of being possibility-oriented. A state which allows you to recognise what you are already capable of and which is self-appreciative. It is subsequently important that you are given an opportunity to test this on a small scale, that you reduce it and initiate it through affordable loss clarification. The aim is to establish a new state of mind using effectuation as a framework for articulating what you need to do, this should be based partly on what you have learnt through individual action and partly based on coaching and group learning. Experience, whether good or bad, is viewed through an action oriented fail-forward frame of reference which results in the acceptance of mistakes and which focuses on future potential.

This will provide ways of loosening up the established sense of self and will provide an opportunity for forming a new identity. At the same time, creative students are shown that their creativity is relevant and valuable also in an entrepreneurial context. Thus, the prior understanding that creativity is a content element and not a part of the form is negated.

If we want to communicate successfully with female students, we need to adjust the way we communicate very specifically to the target group. We need to neutralise words, and we need to adjust gradually to the world as it is experienced by females. Language must be combined with experience. Illustrations must create identification with the target group.

Communication through different approaches is preferable in order to target people who are not "natural entrepreneurs", including women, "one word fits all" is the wrong approach. There should also be more non-committal offers.

We have reason to believe that, with a few gender specific exceptions, the recommendations for promoting female entrepreneurship will also fit many males, who are not 'born' entrepreneurs. However, we have not had a purely male test group of not 'born' entrepreneurial students, to prove this.

Assumptions about teaching methods for promoting an entrepreneurial mindset among people who are not 'natural born entrepreneurs'

- To create a space for learning that provides you an opportunity to learn based on your own experience of success and gather new experiences
- To participate in the experience others have accumulated through role models and teams.
- To use appreciative feedback
- To create a culture which is supportive and optimistic as well as fail-forward opportunity-oriented
- To use communication which is specifically adjusted to suit the target group

The recommendations on promoting female entrepreneurship among students can be further grouped in four focus areas:

Expanding the traditional understanding of entrepreneurship

- Visualising creativity as an entrepreneurial resource (and not just as content)
- Addressing the understanding of balance/time of respectively entrepreneur and employee at an early stage
- Female role models who display different ways of being entrepreneurs
- Materials for communication that specifically address the target group
- Using a language which feminises/expands the understanding of entrepreneurship
- Addressing worries with regards to maternity leave from the beginning /lack of knowledge which hinders entrepreneurship
- Strategies for handling specific lack of knowledge which inhibits entrepreneurship (maternity leave, unemployment benefits)
- Challenging the cultural understanding of own possibilities and limitations

Creating a space for the forming of a new identity

- Role models must reflect the target group in order to further the possibilities of identification
- Achieving self-efficacy / confidence to act --- increased self-awareness through own abilities
- From Lonely Rider to community, focusing on networking skills

The application of an appreciative and action-oriented teaching method

- Effectuation: Make it smaller, "Bird in the Hand", think less and do more
- Identification of competences, recognising and showing in a way that is forward-looking and action oriented
- Group relations must be facilitated, they do not occur spontaneously
- Training the use of fail-forward (breaking with the demand for perfection)
- Addressing the fear of making mistakes / the fear of rejection
- Mapping affordable loss, concretising losses
- Interplay between pushing forward and contemplation
- Toolbox / tools for providing structure (structural-?)
- Stage specific segmentation + offers directed at the relevant stage
- Target group adjusted communication in words and images, in order to feminise the concept of entrepreneurship, creating identification.
- Coaching effectively
- Creating a balance between comfort /challenge
- Influencing positively through appreciative expectations
- Slightly longer clarifying courses including groups / meetings
- Training the personal use of networking with regards to "Self/selected Stakeholders"
- It is a good idea to hold one-off events for women AND mixed groups

Politically!

- Promoting the development of a more flexible labour market which permits different degrees of entrepreneurship
- Removing existing rules which apply to job activation and which inhibit or make it directly impossible to test entrepreneurship and other types of self-employment.
- Setting up a fund to provide income support to self-employed pregnant women which will open up the area to female entrepreneurs

Q:Ark – a pilot project testing the incremental integration of enterprising elements in the curriculum at AAA

Based on the sum of experience partly from our various enterprising courses, partly from the students growth house Ark:Idea and and partly from the 2 projects SPRING and METASPRING, we applied for the project Q:Ark. Q:Ark is a project, testing the integration of enterprising elements in the curriculum at the Faculty for Design at AAA. Q:Ark is funded by the Danish Foundation for Entrepreneurship -Young Enterprise.

As formerly implied, at AAA, we saw integration as a means to 'reach' the last not 'born' entrepreneurial female students, representing an unused entrepreneurial potential. Since these female students would not sign up for an enterprising course by themselves, the enterprising elements need to be fully integrated in the curriculum.

Q:Ark represents a model for integration of enterprising elements into an existing curriculum or study structure, an incremental innovation of the existing curriculum. The modular structure intends to make it easier for the teachers to include enterprising elements in the existing, without starting from scratch.

The specific activities in Q:Ark consists of 3 one-week workshops integrated into the overall theme at the Institute of Design in spring 2011, 'Health'.

The three workshops are aimed at all 4th year student (m / f), and they address the specific experience and competence, we have identified as critical factors for promoting entrepreneurship among women students.

Courage and confidence:

Experience with interacting with the surroundings. These experiences and the feedback the students receive in their interaction with the outside world, is an affirmation that they have substantial professional qualifications and are professionally interesting as collaborators.

Network:

Establishing external network extend the field for the creation of enterprising opportunities and provides an understanding of the market, and an insight into to where they can seek information and advice as entrepreneurs.

Role models:

Exemplify different approaches to being entrepreneurial, including some which women often value highly: to have a balanced work/life and is this a possibility as an entrepreneur. Role models have proven to be a very powerful instrument to inspire entrepreneurship, in Q:Ark primarily female role models are involved.

Economy, taxes and legislation etc.:

We intended to demystified these issues through the presentation of simple tools for financial management, information about intellectual property rights, copyright and patents, types of business constructions, etc..

Team cooperation:

It is our experience from Ark:Idea that women often want to start with other people, that being in a team strengthens their self-efficacy.

Interdisciplinary collaboration:

Being part of an interdisciplinary team, make students more aware of their own professionalism, and instils confidence and awareness about their own abilities. An interdisciplinary approach is a well known innovation generator, and having a multidisciplinary network increases the chances of realizing opportunities / projects as an entrepreneur.

Workshop 1: Interdisciplinary Workshop 'User Driven Innovation'

In interdisciplinary teams, the students develop practical solutions to user-driven innovation within the theme of 'Health'. Interdisciplinary cooperation partner is the Engineering College of Aarhus.

Workshop 2: Meeting with the practice dimension

Visit to a wide variety of role models, working in entrepreneurial way, of which the majority is female. Meetings with management consultants, group reflections, elevator speeches, and factual knowledge about economics, legislation, business construction etc.

Workshop 3: Development of specific project ideas.

To be solved in collaboration with outside companies. Group Counseling and coaching by two external management consultants.

Moreover there is also and an extra dimension, a consistent 'awareness' on the creation of possibilities in cooperation with the outside world, articulated by external business counsellors, we invite to follow the program, and who are present at milestone presentations.

Conclusion: From the horses own mouth

To conclude this paper, we would like to give the floor to 2 female design students, Lene Schoedt and Janne Lykke. We asked them what they gained from being part of Ark:Idea, the student growth house at AAA.

Lene: 'What I really got out of being part of Ark:Idea, which was very much worth it, was something I do not think we are taught at the school, which is a big mistake indeed. And that is to get off the ground and get into contact, and dare to tell about yourself and your project, and to make those phone calls and to dare to network. To get an external network! I think it was really rewarding, and it has made me think, that if everything goes wrong and I suddenly get the urge to become independent, then there is no problem in that, I can do it.'

Janne: 'Especially in relation to project presentation, I have gained much from my participation. Now, I believe in myself and the project I'm working with, and I concentrate on communicating it clearly. I have practiced presenting the essence of the project. This is probably what I gained the most.'

Lene: 'It's a great way to meet the students from other faculties, and learn how we can use each other, maybe not directly, professionally, but as a network. I thought it was interesting to keep up with the others' projects.'

Lene: 'I think it gave me a lot of confidence, being somewhat ambivalent about what I really am capable of and am I actually capable of anything? And can I allow myself to say it? Women are generally good at put their light under a bushel, and that is just of no use! You have to get off the ground and tell others you what you can do and how good you are. I think being a part of Ark:Idea gave us a lot in this direction. It gave us some confidence, which we used during our subsequent presentations. We learned how to use the criticism we got in a constructive way instead of being discouraged by it.'

Janne: "Our latest project at school has been much more realistic. We've both worked with contracts and have had contact with many different partners. This is certainly due to the fact that we have been a part of the Ark: Idea, that we had a distinct idea about what we wanted out of the individual contacts, and how we could be of use to each other. '

Lene: We may be trained to be creative and to be designers, and this is what we should be trained to do. But it is pointless, if we can't sell our expertise and our work as designers.'