# THEORIES AND EXPERIENCES ON TEAM LEARNING

# PROAKATEMIA ACADEMIC ADVENTURES

EDITED BY: HANNA SARAKETO & TIMO NEVALAINEN

TAMPERE UNIVERSITY OF APPLIED SCIENCES

# THEORIES AND EXPERIENCES ON TEAM LEARNING

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## Academic Adventures in Proakatemia

Edited by Hanna Saraketo & Timo Nevalainen

TAMPERE UNIVERSITY OF APPLIED SCIENCES

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# CONTENTS

Foreword
Introduction • • • • • • • • • • • • • • • • • • •
Basics of team learning & coaching • • • • • • • • • • • • • • • • 10
Basics of the theory • • • • • • • • • • • • • • • • • • •
Teaching or coaching? • • • • • • • • • • • • • • • • • • •
Coaching master's degree students • • • • • • • • • • • • • • • • • 50
Future business skills • • • • • • • • • • • • • • • • • •
How to build a community that adds value to educating young entrepreneurs • • • • • • • • • • • • • • • • • • 62
The competence-based curricula of proakatemia • • • • • • • • • 72
No exams, no grades, no lectures • • • • • • • • • • • • • • • • 82
Student's freedom and responsibility •••••••••••••
Meeting the challenges of user-driven research, development, and innovation in universities of applied sciences ••••••• 98
Afterword ••••••••••••••••••••••



# FOREWORD





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A cademic Adventures was the first international week for faculty and staff members in universities and other institutions of higher education organized by TAMK Proakatemia. It was held in May 2017. The awakening of Finnish nature provided the best setting for international academics to gather and experience team learning and coaching in practice.

Academic Adventures got 37 participants from more than 10 countries around the world. The staff of Proakatemia and TAMK R&D&I Services were also involved, as well as some of the students who, at Proakatemia, are called teampreneurs – entrepreneurs in team companies.

The idea for Academic Adventures international week originated from a coaches meeting, after which the ball was thrown to teampreneurs who took it eagerly and took care of organising the whole event.

This publication summarises the discussions the participants had in training sessions during the week. The articles open the theoretical background and ideas around team

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learning and coaching as well as try to explain how we work at Proakatemia. An article on the practical tools and insights of the work of TAMK R&D&I Services is also included.

> "Learning is the only thing the mind never exhausts, never fears, and never regrets." -Leonardo Da Vinci

As so often at Proakatemia, the teampreneurs and coaches have worked together and thus written these articles together. The teampreneurs' points of view are vital in providing a credible account of team learning and coaching. This is one way of learning by working together. I hope that this publication is able to provide many more examples and inspires its readers to think and further develop their valuable experiences of learning together. The articles are written by the following TAMK staff members:

Perttu Heino Liisa Heinonen Veijo Hämäläinen Tiina Koskiranta Sami Lehto Elina Merviö Timo Nevalainen Hanna Saraketo Tarja Tittonen Tanja Verho and Antti Vuento

and the following teampreneurs from TAMK Proakatemia:

Hermanni Ahtiainen Riina Hahtokari Jonna Lipponen Kajsa Lundell Aino Luuppala Eetu Mäkelä Ella Ora Annika Rantanen and Juuli Tappura. Theories and Experiences on Team Learning



# INTRODUCTION THIS IS TAMK





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Tampere University of Applied Sciences is one of the largest universities of applied sciences (UAS) in Finland. There are almost 50 degree programmes, 10, 000 students and 730 staff members. These are big numbers in a country of 5 million inhabitants.

According to the Finnish legislation on universities of applied sciences, the main task of a UAS is to provide higher education leading to professional expertise for working life. In addition, a university of applied sciences should support economic and cultural development in its region by conducting applied research and development and by carrying out and promoting artistic pursuits.

TAMK's educational provision focuses particularly on wellbeing and health, business, and industrial production, with special emphasis on promoting learning and creativity. The strategic imperatives are:

\* lifelong learning skills and competences for future needs

\* securing private sector funding

\* innovative, multidisciplinary focus areas grown from our expertise

\* international dimension in all our operations.

The Finnish Education Evaluation Centre (FINEEC) has conducted an audit of Tampere University of Applied Sciences and awarded the institution a quality label that will be valid for six years from 14 March 2016.

TAMK's Education and RDI area of operations consists of five schools and the R&D and Innovation Services. Proakatemia is part of the School of Business and Services, and its Degree Programme is called Entrepreneurship and Team Leadership.

Sources:

TAMK 2017. Introducing TAMK. [http://www.tamk.fi/web/tamken/introducing-tamk]

# 6

### BECOME THE BEST YOU CAN BE

#### A BRIEF HISTORY OF PROAKATEMIA AND THE RESULTS

Proakatemia in Tampere University of Applied Sciences (TAMK) is an academy of new knowledge and expertise where the students study and learn in team enterprises. Instead of setting boundaries, the coaches dare students to reach for their dreams. In Proakatemia, the students will become part of a team and our inspiring community of entrepreneurs.

The story of Proakatemia began in 6.9.1999, when the first 20 enthusiastic students started in a team called Villivisio. Since that, 27 teams with a total of over 420 students have graduated from Proakatemia. In the beginning, Proakatemia consisted of one and a half coach and 20 students but today we have 100 students starting every autumn and 14 full or part-time coaches.

During the years, there have been two main things that have had a lasting effect on the whole community. These two things are the values and the vision, which have been created together by the students and the coaches. Proakatemia's vision and values are a platform, which encourages our students and coaches to try new things boldly, fail and try again until we succeed.

Our values are Trust, Courage, Doing/Deeds, Learning and Success. Values are meaningful in our everyday life – they are Proakatemia's strong backbone and the way to assess everything we put in practice. Vision gives us long-term scale and helps Proakatemia find new ways to improve entrepreneurship, team learning, and leadership.

### Proakatemia's vision for 2019 is:

# "SUCCESS. Proakatemia is the best source of knowledge and competence for entrepreneurs of 2020's."

Proakatemia has improved and changed significantly during its history of nearly two decades. Proakatemia has become an independent unit and has moved around the Finlayson Area five times. Open-space premises and working close to customers have become established as core principles of Proakatemia.

Y-campus, which is the centre of entrepreneurship and innovation, started at the TAMK main campus in 2012 – and became a way of spreading Proakatemia's spirit and tools to all the students, staff, and researchers. By the end of 2016, Y-campus had reached over 250 university teachers and carried out the coaching programme "Team Coaching for Higher Education" with them.

Proakatemia's Master's Degree Programme was created in 2013. Proakatemia was redesigned as an independent Degree Program in Entrepreneurship and Team Leadership in 2015. Moreover, one cannot forget Proakatemia's international activities: many of our students spend a semester abroad as exchange students, Proakatemia has a designated International Team, and a number of international guests from all around the world visit Proakatemia each year. Rewarding culture and different kind of parties are the milestones, which makes our community stronger. There are not many university programsthat celebrate the birthday of the programme every year with the students and alumni network. Proakatemia does.

Of course, there is the entrepreneurial point of view. Proakatemia's teampreneurs establish their own co-operations whose turnover ranges from 40 000 to 150 000 euros in a year. Total turnover of the team companies was 763 000 euros in 2016. In addition, it is good to remember that 37% of graduated students continue directly as entrepreneurs and the companies established by alumni have 9 M $\in$  turnover annually.

Become the best you can be. It gives you the opportunity to grow, develop and learn. Every day. That is Proakatemia – in the history, today and tomorrow. It is all about attitude.

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# BASICS OF TEAM LEARNING & COACHING

### THIS IS HOW WE LEARN AND STUDY AT TAMK PROAKATEMIA





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This article and the training session that was held around the topic at Academic Adventures International Week of Proakatemia aim to open a door to everyday life at Proakatemia. We learn by working together. What do we really do in practice?

The Why?-question will be answered in the other articles of this publication. The curricula of Proakatemia is also explained in another article. Many of the challenges around team learning are also opened in the other articles – as well as successes and all kinds of experiences.

This article cannot tell all the tools for team learning or coaching; only a very few of them. There are several books around those topics. If you are interested in them, just Google, for example, Johannes Partanen.

## WHAT DOES THE CURRICULA SAY?

According to the curricula of Proakatemia, the studies and learning consists of

\* Work in Team Company: projects for customers, company meetings etc.

\* Seminars

\* Literature & essays

- \* Team learning & coaching
- \* Free choice studies (15 ECTS credits)
- \* Final thesis (15 ECTS credits)

As their first thing at Proakatemia the students establish a company, most often a co-operative, and start to work as what we call teampreneurs. There are around 15 – 20 teampreneurs in a company. Each company gets a coach. They'll work 2,5 years at Proakatemia – after that they are free to do whatever they like with their company. The oldest team company, Villivisio, was founded in 1999 and it is still up and running a remarkable business in Tampere region.

After the paperwork, which is rather light in Finland, the team company starts to develop products and services and find customers for its services. It needs to form its vision, mission, and strategy, start the bookkeeping, marketing, human resources processes – all the basic things a company needs to take care of.

The teampreneurs are required to take part in seminars that are relevant to their businesses. Every month the team companies organize a joint seminar at Proakatemia. Other vice they attend seminars that are organized at the main campus, the Universities, business associations in the region, or even abroad.

The curricula also demands that the teampreneurs need to read and write essays to reflect what they have learnt from what they have read. These essays are published in the internet; have a look at Esseepankki of Proakatemia to look at the essays. Most of them are in Finnish since Finnish is the official language of Proakatemia, but rather many teampreneurs want to show their knowledge of English by writing and publishing in English, too.

There are three kinds of essays in Proakatemia. The first category is blog texts: short, witty, even provocative texts to provoke discussions around the topic, published in a blog, too.

The second category is individual essays: the teampreneur reads a book and writes a reflective essay bringing theory to practice. The books (or webinars or TED Talks – the form of the source information is not the point but the content) are chosen by the teampreneurs themselves. The most popular ones are famous business books, like Good to Great from Jim Collins or Blue Ocean Strategy by W. Chan Kim and Renée Mauborgne, but anything is allowed as long as it is relevant to learning. Some teampreneurs have gained deep understanding of business life by reading The Little Prince or The Alchemist.

The third category is to practice academic writing. Two to five teampreneurs write together an academic essay. There

needs to be several sources of information, and much more content compared to individual essays.

There is a certain amount of essays every teampreneur is required to publish in a year. These limits are guided together by the board of Proakatemia (Business leaders of the team companies + the head coach). It is a tradition that a team company that does not write and publish all the essays in time needs to pay the costs of the Spring Party for all Proakatemians, or something equivalent.

All the hours that the teampreneurs do for their learning or for their team company are collected to "HOPS". It is officially an individual/personal study plan. It is an Excel workbook with six sheets. Everybody puts his or her hours in. The others are able to see each other's hours. As a project hour, you can only put in an hour from a project where you have a customer who pays for the services or products. In the end of the project, the hours and incomes are counted and we will see if the amount of work has been worth the money. We aim for sustainable business and increasing turnovers.

During their studies, the teampreneurs study 15 ECTS credit points of free choice studies. Those can be anything any university offers. It is a way to study abroad as an exchange student or to widen your knowledge in a special field, i.e. accounting, programming, and languages.

In the end of their studies every teampreneur writes a Final Thesis. It is academic work but, as all final theses in UAS in Finland, there needs to be a customer to give the thesis a platform. This means that purely theoretical theses are not allowed in Finnish UAS's. The requirements of the thesis in Proakatemia are similar to other students of TAMK UAS.

### TEAM LEARNING AND COACHING IN PRACTICE



Team learning and coaching mean several things and actions in practice. In Proakatemia almost nothing is obligatory. We apply actions that we find useful – if something does not work, we will probably change it soon. The picture above shows some names of the actions that are commonly used in Proakatemia. Since our official language is Finnish, some of the translations are not set phrases and might be used differently depending on the speaker.

#### **CHECK-IN AND CHECKOUT**

Rather often, we begin a meeting or training session with a check-in. It is, for example, a question that everybody answers. The purpose of the check-in question might just be to get everybody's attention, to notice everybody, or to raise thoughts around the topic of the gathering. It helps the shy ones to get the habit of taking part in the discussion. It helps the extroverted ones to give room to introverts. It helps the busy ones to concentrate in the situation in hand.

The check-in question round takes some time; if there are 19 teampreneurs and a coach, it takes easily 10 - 20 minutes. Those are valuable minutes and worth it, but just keep that in mind when planning the timetable. During the check-in a participant might want to share something other than the exact check-in question requires; something that is bothering his/her mind. It might be a personal problem but usually it is good that he/she gets the opportunity to share it with others.

Checkout takes equal or even more time from the end of the session. The answers provide valuable information of how the session has affected on participants. A very common checkout question is "What do you take with you from this session?" There could be other purposes, too, such as, "What was the most surprising fact you learnt today?"

# "Who was the most valuable participant today and why?"

"Give special thanks to someone." "What are we going to do next?" or "What are you plans for the weekend?" Depending on the question, the atmosphere of the meeting might end with joy, deep thoughts or even confusion.

#### DIALOGUE - 'DIALOGI' TRAINING/DIALOGUE SESSION - 'PAJA' PRIMING/INTRODUCTION - 'ALUSTUS'

The principles of dialogue are something that everybody must learn at Proakatemia – and not only learn but to act that way, too. There is more information about the dialogue in the other articles of this publication, and behind lie the ideas that are presented in Isaac's book Dialogue and the Art of Thinking Together (1999).

Every team company has training sessions two times a week. Each session takes four hours. The topic is decided by the teampreneurs, though the coach may help with choosing it. The form of the training session is free. It is possible to take the whole team to the cinema to see a movie about Steve Jobs and to have a dialogue around that.

It is possible to have a specialist visiting and giving a lecture of some specific topic. It is possible – and most often the case – that one of the teampreneurs introduces a topic, gives some theoretical information around it and lets the dialogue take care of the rest. The feedback is asked in the end of the session; this helps to develop training session even better.

According to my experience as a team coach, the best training sessions begin by setting the learning goals for the topic together. In those cases, everybody is able to participate and involve in the process. The responsibility of the session is shared. The best training sessions have had a task to do before, such as to read a book or to be prepared somehow beforehand. The best training sessions include a summary, in a way or another. Everybody has discovered new things, learnt something new, has been able to be impressed by new thoughts – and feels happy and motivated to learn more.

#### CROSS-POLLINATION - 'RISTIPÖLYTYS' LEARNING CIRCLE - 'TUPA' LEARNING CELL - 'SOLU'

Cross-pollination means that we encourage teampreneurs to visit other teams' training sessions. For that purpose the topics of the training sessions are often written on the wall of the team room.

Learning circle refers more to a university course but Proakatemia style. It is a set of training sessions that are run by a coach. The participants come from different teams. Typically, we have one learning circle in a semester. The most common topics have been leadership (especially meant for business leaders of the team companies and for project managers) and economics (especially meant for teampreneurs who are currently responsible of the economic affairs of the team companies or who want to specialize themselves in that area). The learning circle includes assignments, literature, dialogue and coaching.

Learning cells happen when two or more teampreneurs want to gather around an interesting topic. It is surprising to me how often these gatherings have developed into serious businesses. There was a learning cell for teampreneurs who were interested in fashion. They got a sustainable project out of their common interest. There was a learning cell for those who were interested in electronic sports; now there is an active association called Tampere eSports Club. Just recently, those who were keen on virtual reality games met on Friday evenings at Proakatemia. An amusement center for virtual experiences was opened some days ago in Tampere center. Not all the cells end in success stories, but they are valuable occasions to try to find something new to learn.

### LEARNING CONTRACT COTTAGE IN THE FOREST

Learning contract is based on Ian Cunningham's (1999) ideas on setting goals. Every teampreneur and coach writes a learning contract every six months (in the beginning of the semester). He/she answers to questions:

- \* where have I been?
- \* where am I now
- \* where am I going to
- \* how do I get there
- \* how do I know I am there.

The time scale might be a semester, or till the end of studies, or to retirement, according to the stage of the team. It is possible to use learning contract as a tool in any kind of studies. In Proakatemia, the learning contracts are shared to other team members. It is very valuable to know what the other teampreneurs aim for. Only then, it is possible to form a shared vision for the team company.

Learning contracts are rather private. To share them there needs to be peace and quiet, time, and possibility to concentrate. For this purpose, the team companies usually rent a cottage that is situated somewhere in the forest or at least far enough from everyday activities and interruptions. The coach is with the team and shares his/hers learning contract, too.

#### COMPETITIONS CHALLENGES/INNOVATIONS 24 HOURS

Competitions tend to enlighten people. In Proakatemia there are several competitions during the year; some of them are serious and part of the curricula, some are to help some current matters forward, and some are just for fun.

The coach is allowed to give his/her team a challenge when he/she feels that the team needs it. There are no traditional exams in Proakatemia, so the challenges are used to evaluate how the team is developing professionally. In a challenge, there is a task from a customer. The team gets 4 - 24 hours, sometimes some days, to solve the problem. They present their solution to the customer who gives feedback according to how well the needs of the customer were met.

24 hours is the final "exam" for the team companies. It is held in November; the team will graduate in December. It is interesting that the younger team companies organize the 24-hour challenge for the graduating teams. The customers (companies) that give the tasks give grades for the teams. Money is included in the grades. If the customer is more than satisfied and marks the solution as five (on scale 0 - 5), the team company gets several thousand euros as a salary. If the customer is not happy and the mark is zero, the team company will pay the customer and in that way apologizes for the disappointment. The teams prepare for the challenges as well as they can, not knowing what the challenge is about. After the challenge, there is a feedback session where the team evaluates how it worked. A Motorola, see next paragraph, is a good tool for that purpose.

#### DEVELOPMENT DISCUSSIONS ONE-TO-ONE COACHING

Development discussions are used as in normal working life. The coach meets with each teampreneur every semester for one to two hours discussion on how the studies and learning are going. These discussions are valuable moments to rethink the learning contract and set future steps for learning. We discuss the quality of the essays, the reading plans, challenges of the projects, etc.

There is the possibility to challenge the teampreneur to reach for higher goals – or just the opposite, if that happens to be the case.

One-to-one coaching is something that every coach is available for. Any teampreneur can ask for coaching from any coach. The G.R.O.W. model is one tool for individual coaching but any other tool for coaching is possible, too.

### PRE-MOTOROLA MOTOROLA FEEDBACK

Pre-motorola (Toivonen 2014, 71) is a pre-project plan. It is important that the teampreneurs think what they are going to learn by starting a particular project. If there is nothing new – then what could be done? Better quality than last time? More customers? New locations? Pre-motorola also helps to realize the things they need to learn to be able to start the project and keeps the customer's point of view clear in mind.

Motorola (Toivonen 2014, 71) asks five questions: what went well, what went badly, what we learned, what we will do better next time and what do we take into practice. The name motorola comes from the American company Motorola as it is told that these questions were asked in its project reports. Motorola-style feedback is used daily at Proakatemia. The questions are simple and work in all kinds of situations: in the end of a training session, in the end of a project, in the end of the academic year, etc.

To me, the most important thing is that the teampreneurs learn to always collect feedback. It is a valuable habit.

The teampreneurs are eager for feedback. They do get feedback from customers, as mentioned earlier, and from the coach, i.e. in development discussions. They want to get feedback from their team members, too. For that purpose, they organize feedback training sessions. What I have seen so far the tools for collecting the feedback are numerous. One of my favorites is the speed-dating-style feedback where everyone is prepared and then gives feedback for two minutes for every member of the team. After two minutes, they change places and the feedback talk starts again with a new pair. There is a lot of talk and noise since everybody talks at the same time, but it is also very effective.

In the beginning of feedback training sessions, we usually talk about feedback in general. Afterwards it is good to share some thoughts of the feedback you got: how was it, what will you take into action. To be able to give valuable feedback in a straight but polite way is a skill that I wish everybody in this world have.

### PARTIES CELEBRATIONS AWARDS

All too often work or studying tends to be boring and tiring. At Proakatemia, we feel that people need to celebrate when there is a reason, give credits when someone has succeeded and have parties just to enjoy life. Parties like the birthday of Proakatemia in the early autumn, the Yearly Gala in January and the Spring Party in May are part of the year plan. There is always a project team of teampreneurs who take care of the arrangements. It is a way to learn, too.

The main purpose for the parties and celebrations is to keep the spirit high and to strengthen the feeling of togetherness. Proakatemia, even though a "school" or university unit, is a tribe that provides safe surroundings to learn by working together. Theories and Experiences on Team Learning

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# **BASICS OF THE THEORY**





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"There are three important elements to Yiquan training: Relaxation, use of mind (i.e. mental imagery), and the concept of contradictory power." - Juha Leino in translator's foreword to Zhang, C. (2011).

In this short paper we will argue that the elements named in the quote above from a book on Chinese health exercise and martial art Yiquan (the name translates roughly to intention (style of) boxing) have relevance for the practices of vocational higher education. In Yiquan, the goal of training is to allow the natural processes of the body to function effectively. This is achieved, first, through relaxing, or letting go of tensions that induce unnecessary rigidity and letting the body stand, sit, lie or move freely without rigidity.

Relaxing in Yiquan does not mean collapsing as relaxing is often understood in western cultures. The concept of relaxing in Yiquan is similar to that in Alexander technique, a process of learning to avoid unnecessary muscular tension by retraining reactions. In Alexander technique, focus is on building and maintaining a posture where the relationship between the head, neck and spine allows for a free functioning of the whole body as a system.

Incidentally, educational philosopher John Dewey who was himself a student of Alexander has written that Alexander's method "bears the same relation to education that education itself bears to all other human activities" (in foreword to Alexander, 2007/1932). This relation can, perhaps, be summarized as a process that allows for methodical examination, careful deliberation on and fine-tuning of processes which, when running their course without this fine-tuning, would be less than optimal and possibly have a harmful effect on ourselves, our relationships, our communities or the world we live in.

This is in tune with Gert Biesta's argument that the concern of education lies in examination, deliberation on and finetuning of desires and expanding the space of intelligent choice over them, or "*the transformation of what is desired into what is desirable*" (Biesta, 2014).

A study conducted at Google over team efficiency (Duhigg, 2016), as well as previous research by, for example, Edmondson (1999) shows that, from all factors contributing to effective teamwork, psychological safety, or the experienced ability to take risks within the team without feeling insecure or embarrassed has the highest contribution to team effectiveness.

The concept of psychological safety on the team level

carries some similarity to being able to relax or to let go of unnecessary and harmful tensions on the individual level. This relaxation of tensions is necessary for the thoughts, ideas and emotions to flow freely in dialogue, which can itself serve as a method for letting go of harmful tensions that are often based on less than well-founded assumptions, evaluations and judgements within the team.

Thus, I will suggest that coaching and team learning in Proakatemia can be understood through a model that functions on three different temporal levels: the foundation (what is already), the educational situation (what is taking place) and the educational process (what is becoming). These in turn can be summarized with regards to their main foci:

1. The foundation: Psychological safety and trust, or suspension of unnecessary and harmful judgements, assumptions and mental rigidity on both, individual and collective level.

2. The educational situation: Introducing (through slowing down), maintaining and deliberating over useful tensions and contradictions.

3. The educational process: Initiating (making visible) and maintaining relatively fast cyclical processes where the interplay of useful tensions and contradictions can take place and facilitate growth.

### THE FOUNDATION OF PSYCHOLOGICAL SAFETY AND TRUST

It could be said that in Proakatemia, the team and the trust shown to the students by their peers, customers and coaches both compels the students to work and learn in a more involved manner, and provides a relatively safe and supportive environment for learning, often through mistakes and shared reflection. Students collectively own their team enterprise and their learning processes. They acquire new skills and knowledge not for some future working life where they suddenly become useful but to be better in running their business and to be able to better support their team. This gives both the studies, in form of books read, essays written, dialogue workshops led and participated in, and the development discussions with the coach, as well as real business projects profound meaning for the students.

The basis of coaching is in taking on a peculiar mindset of a team coach. Instead of focusing on delivery of a specific content matter or appearing 'scholarly' or 'teacherlike', the team coach focuses on the results of the team members' actions, as well as her own actions that influence the actions of the team members who have personal interest in the outcomes of their collective action:

Training is about those situations in which those who learn do not really share in the use to which their actions are put. They are not a partner in a shared activity. Education, in contrast, is about those situations in which one really shares or participates in a common activity, in which one really has an interest in its accomplishment just as others have. In those
situations one's ideas and emotions are changed as a result of the participation. (Biesta, 2014)

Students who have previously been trained in individualistic institutional settings often fail to see the consequences of their own actions (incl. communication) for what others and the whole team are able to achieve. This is where the coach plays a crucial role in maintaining a safe environment where the students are able to reflect on their interactions, give and receive feedback, and engage in dialogue with others. The focus of team coaching is in enabling students to reflect on the consequences of their choices of actions, including inaction, for the whole.

The coach builds and guards a safe and dialogical setting, where difference and uncertainty can be tolerated by the team members. Safety is also crucial for people to be able to express their vulnerability, which is essential for building trust within a team (Lencioni, 2015). It is very difficult to feel empathy or trust towards someone who does not appear vulnerable. It is also difficult to express our own vulnerability when we notice that others are uncomfortable with expressing their vulnerability in the presence of others. We quickly assess the situation and decide whether a situation is such that our vulnerability as human beings will be accepted and respected by others.

### MAINTAINING USEFUL TENSIONS

Independent persons do not come together to form a relationship; from relationships the very possibility of independent persons emerges. (Gergen, 2009)

When I started my PhD research in Proakatemia, it soon became apparent that even when people talked about how good and relaxed the atmosphere in Proakatemia was, there were a number of tensions that featured often in dialogue, perhaps the main one being that between individual difference and the collective or communal consensus. Other potentially useful tensions and contradictions besides that between self and others that often come up in dialogues and conversations with students and coaches include those between individual and collective freedom and responsibility, use of time (leisure/work), current situation and dreams (for future), as well as doing (action) and thinking about doing (deliberation).

# Certainty is antithetical to learning: When we increase certainty, we reduce the space for learning.

Transformative learning is built on friction and uncertainty. Managerial perspective is often focused on running things smoothly. Some people may mistake the smoothness and easiness of a process with efficiency, even in terms of learning. This, however, is an illusion. Without challenge to our existing frames of reference that will inevitably make us slow down and feel uncomfortable, there can be no transformation of those frames of reference. Education and "learning" without transformation of existing frames of reference and mental models becomes mere training and adapting.

From a coach point of view, there are constant tensions between letting things be and intervening, as well as achieving certainty over the value of one's work and coping with the uncertainty, or the risk of not being valuable as a teacher. An

advice attributed to the founder of Tiimiakatemia, Johannes Partanen for a coach not to intervene when she feels like it, and to intervene when she does not exemplifies this tension: Taken as a reflective exercise it flexes the coaches' ability to intervene (decision not to intervene is a form of intervention) in a meaningful way, even when she does not comfortable doing so. As a coach, one seldom knows for sure how to intervene in the most fruitful way. The possible actions almost always range from non-intervention - still a form of intervention in itself, to taking hold of the whole situation and leading the team through the rough waters. The coach should care about finding a good way to intervene in each situation but, I argue, she should focus even more on remaining in the tension between different options and maintaining her ability to choose between them in an intelligent way, not becoming constrained, for example, by the students' expectations. Tension between different options inevitably involves the risk of making wrong choices. Still, if one wants to grow as a coach, that risk has to be taken and lived through over and over again.

### FREEDOM AND RESPONSIBILITY

Stating that the students and their teams should be trusted with full responsibility of managing their own business and learning does not mean (1) that students should be left to their own devices in the learning process or (2) that individual students will have full freedom to do as they please.

Quite the contrary, faculty members engaging in coaching of self-managed teams need to be more aware of the team and individual learning processes and goals and coach both the whole team and the individuals through continuous dialogue, supportive encouragement and positive challenge. Once the team and individual goals have been agreed and set, the freedom transforms from negative liberty, or the absence of obstacles, barriers or constraints into positive liberty or "the possibility of acting — or the fact of acting — in such a way as to take control of one's life and realize one's fundamental purposes" (Carter, 2016). While perhaps more collective in nature, positive liberty is often experienced by the students as an increase in the level of personal freedom, even more so than being free to act without constraints. In fact, the team and the community often set stricter constraints on the behavior of the individuals than teaching staff in a more stereotypical university setting would set with regards to working hours, work and study practices, as well as external behavior both online and in life outside the studies.

#### MAKING VISIBLE AND MAINTAINING LEARNING PROCESSES

"Don't be a know-it-all; be a learn-itall." - Satya Nadella, CEO, Microsoft

In Proakatemia, explicit theory is not the starting point for designing educational or business practice. One could say that theory behind the pedagogical approach in Proakatemia defies theoretical analysis and needs to be examined as a whole formed by educational theory, practice and experience, as well as shared values and convictions. This becomes evident when one examines the timeline of practical and theoretical development: Most of the "foundational" theories were published after the beginning of Team Academy, the predecessor of Proakatemia, in Jyväskylä. Rather than serving as a foundation for theory-based pedagogical practice, various theories are employed to understand and refine practice on an ongoing basis. In this continuous intertwining of theory and practice, some theories gain more traction and are included into the theoretical foundation of Proakatemia.

The most prominent influence on the pedagogical model comes from Tiimiakatemia model for team learning as developed by Johannes Partanen in Tiimiakatemia unit of Jyväskylä University of Applied Sciences during the 1990s. This model was based on a radical form of social constructivism, combined with various theories of organizational learning (Senge, 2006; Nonaka & Takeuchi, 1995) and self-managed learning (Cunningham, 1994). Many of these early bases of the Tiimiakatemia model still form the theoretical and practical basis of the design of learning environment and activities in Proakatemia.

Where Tiimiakatemia and Proakatemia models depart from usual pedagogical approaches in higher education is that, instead of being based on lectures, exams and essay-writing, or even learning tasks and workshops designed by the teaching staff, they take radical democratic and entrepreneurial freedom and initiative of the team enterprises as their starting point.

This freedom is guided by continuous dialogue within the teams, between students and their coaches, as well as between individual students and the whole community. The radical freedom for the teams to decide on their own business and learning goals builds on the coaches' trust on the students' ability to conduct business and manage their own working

and learning together, as well the coaches' work in facilitating a safe and dialogic learning community.

Interplay between useful tensions is present in David Kolb's classic model of experiential learning (1983).



Figure 1. Kolb's model of experiential learning (based on Kolb, 1983)

In the model depicted above, the useful tensions and contradictions take place between focus on abstract and concrete matters on one hand, and active and reflective activities on the other. The process builds on the continuous interplay between active experimentation over abstract theoretical conceptualization and reflective deliberation over concrete experience. One possible way to extend the model of experiential learning from the level of individual students to more explicitly cover the communal level is through the classic model of organizational knowledge creation, or "SECI-model" (an acronym of socialization, externalization, combination and internalization) developed by Japanese organizational researchers Nonaka & Takeuchi (1995):



Figure 2. Elaboration on the (SECI) model of organizational knowledge creation (based on Nonaka & Takeuchi, 1995)

In the above model, the crucial flows of tensions and contradictions lie between the personal and the communally shared, the experienced/theoretical (deliberating) and the practical (doing), as well as the movement between the tacit and the explicit forms of knowledge. As seen above, many different cyclical learning processes could be applied in reflecting on the learning processes in Proakatemia. Even Proakatemia "Path to Entrepreneurship", the overarching framework behind Proakatemia curriculum, can be translated into a cyclical learning process with underlying tensions between phases focused more on the team and action (building trust, doing) and those focused on the student and deliberation over her possibilities of action (courage, learning).



Figure 3. Proakatemia Path to Entrepreneurship as a cyclical model

Tensions are also inherent in the background assumptions of the model, such as very visible role of the students in taking the lead of their own and, also, their colleagues' learning processes. If we are to take descriptors indicating the learning outcomes relevant to qualifications at level 6 (bachelor's degree) in European Qualifications Framework (EQF) seriously, allowing the students to practice managing their own learning processes as well as those of the others in complex projects with an increasing level of uncertainty, the above processes that encourage fruitful tensions between the subject and the community as well as reflection and application become a necessity.

Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups. (EQF level 6 competence descriptor)

Studies (for example, Marton, 1981) have shown that educators tend to be unfoundedly optimistic on the transfer-effect of learning and theoretical models from lecture halls and classrooms into practice and that those models, when employed effectively in practice, are always entwined with practical, subjective experience of the real-life contexts. In brief, no theory that will have pragmatic value for the students can be learned in theory alone but it needs to intertwine with the students' past, present and future experience of practice.

We should perhaps treat any theoretical models not as models for designing pedagogy, institutional structures or learning environments as such, or expect them to explain how or why something "works" or why it does not. Instead, theoretical models in education are perhaps best taken as tools for deliberating over practices and, perhaps, deepening our understanding of the underlying processes just a little bit. As Biesta (2014) writes, the interesting question might not be whether education is a science or an art but what kind of an art it is.

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# **TEACHING OR COACHING?**





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What changes when you switch from teaching to coaching? Who is responsible for the students learning process?

These questions were the baseline for the Teaching vs. Coaching workshop at the Academic Adventures International Week of Proakatemia. They were approached from multiple angles: through our experiences in Proakatemia, participants' experiences in their working environments, and by having an open dialogue. Instead of giving a lecture on our opinion of how coaching should be done, the goal of the workshop was for participants to reflect on their role as the teacher in the classical lecture hall-setting versus the role the coaches have in Proakatemia.

# FROM TEACHER TO A COACH

The workshop was structured to be almost identical to the weekly training sessions, in which the students of Proakatemia share their knowledge with their teammates, to demonstrate a practical way of how we have moved from teachers giving lectures to these student-focused sessions. The workshop, as well as all the others held during the Academic Adventures, was facilitated by a student and a coach working as peers, to bring in experiences from both sides of the coaching process.

This kind of collaboration as peers between the coaches and students is common at Proakatemia and it is made possible by the coaches letting go of the idea that they always know best. When the students aren't limited by the teacher telling them the "correct answer", it guides them to find it on their own terms. Instead of getting the knowledge in a pre-packaged form, the students have to connect the dots themselves. This not only teaches students how to find information but establishes a setting in which new knowledge can be brought forth: without imposing the limitations the teacher believes in, the students look at the knowledge in a different way.

The idea of not giving straight answers is one of the core principles of coaching in Proakatemia and has been put into words well by a French philosopher Jacques Rancière: "To explain something to someone is first of all to show him he cannot understand it by himself." (Rancière, 1991) It means that by telling the answer you deny the recipient of the process of understanding why it is the answer. Giving up trying to control the learning process requires a lot of trust from the coach towards the students. That trust along with openness and mutual respect are essential building blocks of a coaching relationship. Coaching requires the teacher to move his focus from the whole process of learning to the outcomes of the process. (Flaherty, 2004) Focusing on the outcome rather than the process allows students to utilize the studying techniques they find best suited for themselves to reach the same outcome. It doesn't matter if the knowledge is acquired by reading books, watching cartoons or experimenting if the outcome of the process is the same. Giving and receiving feedback based on the results, rather than being judged by the capability to follow a path you as the teacher have laid out in front of him, allows for a much more wholesome learning experience for all parties involved. When the teacher allows the student to shape the learning process to his own needs and the student gives feedback on the input of the teacher, the system works both ways. (Flaherty, 2004)

Just as for the learning process previously described, there is no simple one-size-fits-for-all solutions in coaching. Every coach, every coachee and every coaching relationship is unique and therefore stating that a single technique or pattern would fit every situation is impossible. However, alongside with the principles of coaching, there are other guidelines, such as a Push-Pull-model of coaching a learning process. In the model coaches should keep to the following actions 80% of the time: Listening, Reflecting, Repeating what has been already said, Making summaries and Asking questions. On the other ends of the spectrum as the things to avoid are: Giving answers, Giving instructions and Giving own ideas as tips. (Downey, 2003)

# MOTIVATING THE STUDENT

The second baseline question that was presented at the start of the workshop was about who's responsible for the students' learning. When posed with the question, many of the participants from different corners of the earth had a similar answer: "As a teacher, I am responsible to the school system that my students learn the things stated in the curriculum. If a student is not motivated to receive the knowledge I am giving him, the problem must be in the student." This seems odd from the student's perspective; it isn't the Ministry of Education that knows what it takes for the student to learn a certain thing, it is the student that decides whether he has learned something or not.

After the student facilitating the workshop shared his personal story of how he had always been great at school but getting bored and frustrated at the heavily generalized guidelines of the curriculum the teachers so eagerly followed, it was brought up to discussion that it is in fact the student that is responsible for his own learning. It is the student's job to study and the teachers job is to help him to do that. In the regular lecturer-model teaching, the teacher tells you every answer you will need. He'll tell you what books to read, what questions to ask, who to believe and who to disagree with, when to be present and in the end, he'll give you grade based on how well you did your followed his orders. This posed the question of:

> "Are you teaching your students to study and learn new things or are you teaching them how to please you?"

One of the core techniques of motivating students in the coaching method is setting goals. These goals are not set by the system nor the coach but rather by the student himself. When the participants were asked if they asked their students why are they here, it was obvious that such a practice is almost non-existent all around the world. However, in almost every single job interview in the world one of the first questions is, "Why do you want to work for us?" If such an important question is overlooked by the school system, whose most important function is to prepare the students for work life, is it fulfilling its role?

That question was also approached in a discussion about the changing world. The structures of our societies are changing rapidly through the political and economic events happening around the world. Globalization, digitalization and robotics are shaping the skills and knowledge required in the work places in the future. Kondratieff's wave theory suggests that the future will include shortening and spalling of careers. (Kondratieff, 1925) To prepare the students for an ever-changing working environment, the school system should adapt as well.

In such of an uncertain future, it is difficult to predict the kind of knowledge the students will need in 5 or 15 years after their graduation. Therefore, it is more important to focus on preparing them for those situations of not having the answers and to focus on providing them with a wide selection of tools and methods to find those answers themselves. Lecturing allows the student to be passive and wait for the teacher to give the right answers or a book to study them from. Students being coached are forced to be active in all parts of the process. The biggest difference between students that have been lectured to and students that have been coached is manifested when they are put into a spot where they don't know what the goal is or how to get there. The lecture-students are used to getting outside guidance whereas the coaches understand that not knowing is the starting place of the learning process.

One of the most profound fundamental differences between the learning environments of lecture-based studies and the coaching-based studies is asking questions. In the coaching environment, the students are encouraged to question what the coaches tell them and the coaches question what the students share as knowledge. It teaches both parties to be open for new sources of information. This isn't a new way of thinking. Even Socrates stated:

"The only wisdom is in knowing you know nothing"

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# COACHING MASTER'S DEGREE STUDENTS

PROAKATEMIA'S MASTER'S DEGREE IN ENTREPRENEURSHIP





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Proakatemia's Master's degree programme in Entrepreneurship was started in 2013, and since then three groups have graduated with good success. The programme is targeted for entrepreneurs and experts working in highly intrapreneurial jobs. The aim of the programme is to develop students' skills and knowhow in entrepreneurship, but also to see this development in practice in their companies.

The scope of the degree is 90 ECTS credits and it is designed to be studied alongside work. The completion time is 1,5 years. The studies consist of

\* common, mandatory advanced professional studies (change management and leadership, entrepreneurship and competitive advantage, business development, business networking, global business skills) 50 credits

\* free-choice studies 10 credits

\* master's thesis 30 credits.

The programme has been designed with the most contemporary learning theories, allowing participants to apply knowledge to their particular context.

In the Master's degree we apply methods used in Proakatemia. The programme consists of four three-day mandatory intensive periods in rural Finland, one week period abroad and individual and flexible distance learning phases.

> "The learning process is based on team learning, coaching and applying knowledge into practice."

Students read a lot of business literature and publications, use different kind of online sources, participate in lectures of top experts and learn from each other's experiences.

During intensive periods students focus on dialogue, sharing the knowledge and creating new knowledge and models together. Coaches facilitate the learning process and give short lectures. Students also practice using different kinds of business development and design tools. All the students are responsible for their team's learning by making progress in their own studies and sharing this new knowledge and experiences for the other ones. Co-operation is built on trust between students and coaches. As described in "Basics of team learning and coaching" (earlier in this publication), students do their learning contract, they have their own learning cells, they do challenges and innovations, and they use Motorola as a feedback tool. And yes, we don't do any exams, either. As in the bachelor's degree, students write reflective essays.

# COACHING IN MASTER'S DEGREE

In the Master's degree, coaching is used for facilitating learning and change. Coaches want to inspire students and kindle the passion of learning. They build the trust and atmosphere at the beginning and challenge students to give and get more from the learning process. They also want to see the change and development in practice.

A group has two coaches, the one being more in a role of a team coach and the other one more in a role of a business coach. As described in the article "Basics of the Theory" (Nevalainen et al. earlier in this publication), instead of focusing on the delivery of a specific content matter or appearing 'scholarly' or 'teacherlike', the team coach focuses on the results of the team members' actions and learning. The business coach's focus is more in business expertise and helping students to develop their businesses and companies during the learning process.

Most of the Master's students have graduated from programmes other than Proakatemia. Usually it takes some time to get used to a different approach to learning, need for high self-discipline and taking responsibility for the learning of the whole team. According to feedback, the most highly valuated and appreciated things in our programme include learning from each other, sharing the knowledge, inspiration and enthusiasm you get from the other ones, supporting each other, high standards for learning.

Many students describe how, for the first time in their lives, they understand what learning is about. They get passionate about learning. They change many things in their business practices. And they even are sad when studies are over and they graduate.

Results of this degree programme are good. Most of the students graduate on time, and only few of them have dropped out, which is quite a miracle when you are running your own business at the same time. They do excellent theses. We see a huge personal growth during the studies. We have witnessed businesses that grow; companies that change their business model entirely. Some students have also bought a company, some of them have sold one. In any case, it's all about the capability and desire to design and find your own path. Like W.B. Yeats has said,

*"Education is not the filling of a pail, but the lighting of a fire."* 

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# FUTURE BUSINESS SKILLS

#### LET'S TALK ABOUT METASKILLS





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**B** ack in the days, the mindset for learning was to have one special skill learned which defined your entire career. Today, it is about constant learning. Robots are coming and it will be a radical change. Marty Neumeier's ideology of the future modern society is published in the book Metaskills: Five Talents for the Robotic Age. What does it take for a human being to still maintain its role in the business world in the future? Our vision on how you can learn metaskills in Proakatemia aligns with Neumeier's ideology.

The most important metaskill is **feeling**. Intuition, the ability to arrive at conclusions without a use of logic, is sometimes difficult to define even though we use it constantly. Empathy is also a skill you have, but it can also be trained. In business, where you work with others, empathy is crucial.

We need knowledge about intuition and empathy before we know how well we deal with them. In Proakatemia, entrepreneurial students gain empathy in teamwork whether knowing about it or not. The diversity of each team is wide and full of potential to understand the differences in people. We cannot go forward if we cannot cooperate with the others in the team without a hierarchy. We have to learn to experience the thoughts, emotions and feelings of others, too.

**Seeing** is the ability to see the whole picture, not just the parts. Sometimes it is hard because for people it is easier do either-or-choices. We often think that we have only two choices when there are more alternatives. Giving feedback and getting some feedback helps a lot when doing those decisions.

The most important thing here in Proakatemia is that you can get lot of feedback from your teammates. It helps you to become a better team member and it also helps you to develop projects further. You learn to see things in bigger perspective and you challenge your ability to see things in different way.

If you are creative with unique innovations and do not have any previous knowledge, you might create things people have not seen before; however, you don't know if they already exist somewhere else. If you have the knowledge with a little imagination, you might bring innovations from different industries. It's kind of original but in order to reach the full potential of originality, you must have both: imagination and knowledge. Neumeier says:

# *"Knowledge multiplied by imagination equals originality."*

In Proakatemia, **trust** is the first value in our value path, for a reason. Only in a safe atmosphere people say aloud their actual dreams. We share our dreams, we learn innovation techniques, how to become innovative, and how to bring innovations to practical use.

Reasons why people cannot always fulfill their dreams, for example, are a fear of failure and rigid mental models. Since elementary school, failing was not acceptable and kids were set to feel disgraced. In Proakatemia, we also face the fact that we are afraid to fail, but our mental model is different. We accept the possible failures but despite the fact of it, with the courage and the ability to push the boundaries from the comfort zone, as a team, we lead the projects through the processes until the end. If we fail, we always try to find something we can learn from it. Learning to stand the feeling of a shame comes only after several failures, which you have put into a consideration, why did it happen and what can you learn from it.

**Making** is creating answers, not finding them. When you start, you may not know anything about what you are going to do. This is nothing like traditional business thinking, where you know something and then you do something. If it doesn't work, then you have to try another way.

## "You have to create and test if it works."

In Proakatemia we do lots of projects, and when we start doing these projects we may not know anything about the subject. When we have to do something that we have never done before, we create our own path. It is finding answers and testing what works and what doesn't. We can find very powerful ways to work as and we have change to make big failures and realize this isn't work that way.

### FIND YOUR WAY TO LEARN

**Learning** is self-teaching; learning how to learn. Everybody learns in a different way, so finding your way to learn is very powerful. Find a balance between working too hard or too easy. When your work is too hard, you become anxious and you don't learn. If it's too easy, you get bored and don't learn. You need to find work that is just a little bit challenging and you feel completely engaged – then you are in the joyzone and you are learning about ten times faster than you would otherwise.

When you have done a couple of projects here in Proakatemia, you start to realize what is the best way for you to learn. You can find information from books, internet and by asking your teammates and coaches. You learn all the time and you can find new ways to learn every day. Maybe the best "teachers" are your own teammates. Every week we have training sessions where we all can learn something from each other. If someone, for example, knows lots about marketing, then he can tell others and, just the same way, he can learn more about it.

The ability and willingness to learn prepares us for the future. Let the future change – we will be ready.





# HOW TO BUILD A COMMUNITY THAT ADDS VALUE TO EDUCATING YOUNG ENTREPRENEURS





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### PROBLEM

Working life is in a constant change. Megatrends like automation, robotisation, artificial intelligence and digital platforms will shape the world as we know it. This causes pressure to education. What should we teach to young people preparing for working life, if we do not even know what kind of professions there will be 20 years from now? The Internet is full of different kinds of Massive Open Online Courses (MOOCs) maintained by top universities of the world. There are plenty of other sources from which people can learn the skills that they want, when they want, and where they want.

What if working life begins to give similar value to skills learned outside of a school setting as to the skills learned at school? What could be the added value that universities can offer for future professionals, if the substance can be learned in other ways?

## COMMUNITY IS A KEY BUILDING BLOCK IN PROAKATEMIA

Proakatemia is a program of entrepreneurship and team leadership at Tampere University of Applied Sciences, where people learn by doing. Ownership of the learning transfers to the students through the framework of entrepreneurship. Because students can create their own learning paths, learning is impossible to scale or copy: learning builds on individuals.

At Proakatemia, curriculum is a framework that creates a context for studying. Curriculum states what kind of skills or themes students can learn, rather than trying to define exactly what students should learn. Curriculum is a way to create opportunities for students. In addition to curriculum, Proakatemia uses shared values and vision as guidelines to daily activities. So that these shared values and vision could work, it requires a close community. Community needs to identify the shared values and vision and want to act according. When confronted by problems, community always works through shared values. It leaves room for applications and doesn't force teams to work according to one predefined process.

The values are:

**Trust** – Proakatemia is the most vibrant and inspiring entrepreneurial community in Finland. It draws in influencers and thought leaders in business life.

**Courage** – In Proakatemia we desire growth. We challenge each other to surpass ourselves and to seize the opportunities of the whole world. Action – In Proakatemia, we employ an agile mindset in scanning for new entrepreneurial ideas. We make digital possibilities a reality. As entrepreneurs, we are resilient and strive for success.

**Learning** – Proakatemia is a paragon of learning, taking action together and inspiring professional growth.

**Success** – Proakatemia is the top university of new knowledge and competence for the entrepreneurs who will build the next decade.

However, community does not create itself; it requires work to build and maintain. In Proakatemia, community is built on different kind of elements, whose foundation is in shared sources of motivation. These are (according to Daniel Pink)

1.	Purpose
2.	Autonomy
3.	Mastery

Purpose refers to the desire that people have to create their own path. There is a shared interest for entrepreneurship, constant self-improvement and learning. Purpose is something that drives people forward.

Autonomy refers to apparent freedom. There are no strict rules or predefined path, only a framework in which each will operate. Entrepreneurship allows people to be autonomous and to chase their dreams.

Mastery refers to the possibility to become extremely good at any given field. Proakatemia students have a possibility to invest in what really is intriguing. Stories that come from history of previous teams in Proakatemia encourage the hearts of others to accomplish more. There are many stories where a team entrepreneur has built a path from nothing to a flourishing business in only a few years and continued as an entrepreneur after finishing his or her studies. Stories like these enable impossible or distant dreams to become achievable. Expertise does not appear immediately after completion of a diploma, but it is built with hard work, studying and reflection. Everyone should build their own expert identity.

Proakatemia operates differently from other universities internationally. Usually, universities give much weight on numeric evaluation and external motivation sources. However, amongst others, Pink states that activities that demand cognitive abilities usually don't reach higher performance levels with rewards. These rewards can be seen also as a numeric evaluation. In Proakatemia motivation comes from within, according to Daniel Pink's three dimensions.

#### SHARED RESPONSIBILITY, TRANSFERRED OWNERSHIP & CULTURE OF SHARING

In Proakatemia ownership of studying is transferred to the students. Coaches do not demand developing predefined substances, but rather challenge students to think what the key competences are that would best serve student's own future. Key elements include expanding the perspective and helping students to think. Most importantly, coaches very rarely give answers. Their most valued ability is to ask the right kind of questions. Coaches are more pedagogical experts than strong entrepreneurial authorities.
Shared responsibility means that members of the community share the obligations and responsibilities of the community. Every teampreneur and team in Proakatemia is responsible to count all the hours they spend with Proakatemia studies themselves, and ECTS's are granted based on these calculations. Team leaders, assistant coaches and other responsible student roleplayers form a management group that has dialogues about important community-related matters and makes decisions concerning them.

Learning contracts are a key element for building an environment of trust. The key questions of a learning contract are:

\* Where have I been? (History)

\* Where am I now? (Current reality, feelings, base for expectations)

\* Where am I going? (Vision for the future)

\* How do I get there? (Steps and actions that need to be taken)

\* How do I know I am there? (Measuring the goal)

Community aims to share information openly. In Proakatemia, students share their reflective essays in a digital platform that is open for everyone. In a monthly community event, teams share their business key-figures, talk about successes, failures and major projects. Business Leaders of the teams, Assistant Coach and other responsible student members of the community form a managing board that makes decisions regarding important matters that relate to the community at the time, along with the presence of staff members. During the first year teampreneurs share their history with other team members, creating an open atmosphere where one can share important parts of life in a confidential way. By describing their current situation they give a context where they operate, and by talking about future they give building blocks that can be used when building goals for the team and individuals. Learning contracts work as a tool to spark up reflection and set up goals, but it also gives space for teampreneurs to challenge each other and give feedback.

In many ways, a process that James Kouzes and Barry Z. Posner describe in their book "A Leadership Challenge" fits very well in to the process that is used in Proakatemia to build teams and community.

1.	Model the way
2.	Inspire a shared vision
3.	Challenge the process
4.	Enable others to act
5.	Encourage the heart

## FEEDBACK OR FEEDFORWARD

Being able to give and receive feedback is one of the most essential elements of developing individuals and communities. In Finnish cultural context, feedback is usually given when something needs to be adjusted. Culturally, feedback lacks a positive aspect. In other cultures, this situation could be reversed. Giving and receiving feedback is difficult because it often relates to very personal area. However, balanced, direct and correctly-timed feedback gives personal and organizational development an opportunity to develop fast. The problem is that it requires good skills in receiving and giving feedback. In Proakatemia, teampreneurs develop these skills from the start. There are many tools that are used. The most important of these tools are:

**Motorola**, which is used after all projects. Key questions are:

- \* What went well?
- \* What could be developed?
- \* What did we learn?
- \* What action should be taken in the future?

Motorola can also be used as a pre-action feedback model to predict the possible outcomes or as a mid-project tool to determine position.

**Ring theory**, which is used to evaluate individuals' situations in the team. It consists of 4 rings. The core, or the first ring, forms the core of the team; its most notable members. The 2nd ring consist of key members that contribute a lot to the team, but who the team could survive without. The 3rd ring includes "hang-arounds", or members who belong to a team but give no significant contribution. 4th ring members are in danger to drop out. Every team member evaluates where they see each other in this map. Based on results, the team usually spends up to 4 hours discussing, telling feedback and deciding about future actions that should be taken as individuals and as a team.

Feedback could be called "**feedforward**", as one of the most important characteristic in valuable feedback it is the dimension that looks forward.

# CONCLUSION

Community is something that can inspire and create a safe environment to fail or succeed. In an inspiring community others won't judge, members get constructive feedback and developing the organization is mutually beneficial because of shared responsibility. Community is something that members feel strongly through shared experiences, values and mission. Sometimes members even describe it as a tribe or a religion. The strong bond that ties members of the community together also gives value to the community after graduation, because alumni still want to be part of it in one way or another.

There are many cultural aspects that, in some ways, predefine how community can be built. In Proakatemia some of those cultural context factors are strong equality and democracy; these are also some of the most important building blocks of the community.

Strong community that builds on being, working, experiencing, and sharing together is something that is difficult to copy or scale up in other places or in a virtual environment.

BUILI PROAKATE	DING BLOCKS OF THE MIA COMMUNITY
VISION & VALUES TRUST COURAGE LEARNING DEEDS SUCCESS <u>MOTIVATION</u> AUTONOMY PURPOSE MASTERY FEELING OF NO LIMITS <u>VEARLY EVENTS</u> <u>TEAM DEAL</u> PROAKATEMIA-DAY BIRTHDAY OF PROAKATEMIA SPRING CELEBRATION SALES DAY GRADUATION GALA INITIATION PARTY 24H INNOVATION CHALLENGE PROJEKTORIA EINAL CAMP	COACHING PERSONAL CONNECTION DEVELOPMENT DISCUSSIONS PERSONAL STUDY PLAN CONTINUOUS FEEDBACK ALUMNI MENTORS ALUMNI EVENTS ALUMNI OFFICE ACCESS TO PROAKATEMIA EVENTS TEAM LEARNING LEARNING CONTRACTS TRANSPARENCY TEAMS BUSINESS LEADERS ASSISTANT COACH HEAD OF INTERNATIONAL RELATIONS HEAD OF MARKETING DIALOGUE PAJA OR DIALOGUE SESSION LEARNING CELLS PROAKATEMIA BOARD FEEDBACK HONEST / DIRECT COMMUNICATION
	WAIT RESPECT



# THE COMPETENCE-BASED CURRICULA OF PROAKATEMIA

KNOWING, ACTING, AND BEING





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### WHERE IT ALL BEGINS EQF LEVEL 6

The curricula of Proakatemia have been of great interest to many, mainly because it seems to efficiently ignore the traditional curricula typically found in use at universities across the globe.

The first question often arises already when you get to the word curricula, because it's a plural, and for a reason. There are students from multiple different academic programs attending Proakatemia, such as IT students, hospitality management students and business students. The core of the curricula for all students is based on the same shared base, but it is customized to suit the learning goals of their individual study programs. In this article, I will be referring to the most commonly used curriculum of the business students, as the alterations are rather minor when it comes to the other curricula. Recently an event called Academic Adventures was held at Proakatemia, bringing together 37 academic professionals from 12 different countries, the aim to familiarize them with the way of learning and overall the life at Proakatemia.

The question regarding our curriculum was made there as well, and in response, we held a learning session to showcase the curriculum and the way students and coaches alike interacted and maneuvered with and around the different phases and elements of said academic structure.

To the great surprise of our guests, the curriculum of Proakateamia is in fact based on the EQF level 6 learning outcomes, identical to those found at other universities in more traditional Bachelor's programs and even the main BBA program of TAMK.

EQF, the European Qualifications Framework, sets certain learning outcomes to all Bachelor's programs in the European Union, including "advanced knowledge" and "demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialized field of work or study." (Learning Opportunities and Qualifications in Europe, 2017)

It also includes competence based learning outcomes, such as "taking responsibility for decision-making" and "managing complex technical or professional activities" (Learning Opportunities and Qualifications in Europe, 2017).

And the curriculum of Proakatemia, despite being competence-based, has all that and more. The competence-based curriculum means the focus is not on lectures, as we have none of those, but instead on the students developing their skills by interacting with each other, with other companies, and experiencing life as an entrepreneur – from innovating new offerings to learning about the different pricing structures and delivering a finished product or service to a customer.

# KNOWING, ACTING AND BEING -MAKING ALL THE DIFFERENCE

Proakatemia's curriculum, as well as all TAMK's curricula, have their theoretical base in the three keys presented by Barnett and Coate, which are knowing, acting and being.

Instead of focusing on the contents, suitability for a life of working after graduation or the knowledge itself when forming the curriculum of a study program, Barnett and Coate suggest the focus should be on the way students interpret, analyze and adapt their knowledge. (Barnett and Coate, 2004)

TAMK has made a deliberate change in their curricula for all their programs, including the Entrepreneurship and team leadership program here at Proakatemia, which brings the focus to the way students use the knowledge they are given instead of merely pouring knowledge in and hoping that it sticks. (Marttila, 2014)

At Proakatemia, even though the curriculum is precisely the same and follows the same principles and learning outcomes, it feels like completely different curriculum entirely, because of the way it's applied daily.

### KNOWING

Instead of lectures, we gather knowledge in multiple different ways, most common of which include books, seminars and learning sessions. A core part of the Proakatemia curriculum is based on books. Every student must write at least a certain number of essays to be able to graduate, which results in them reading dozens of books over the course of their studies.

Books and seminars can be considered a part of individual learning and knowledge gathering, but learning sessions consist of the whole team taking part and spreading knowledge to each other on a topic they've chosen together.

For example, if a team needs to file their tax returns or devise a marketing plan for a project, they can choose to have tax return filing or marketing plans as the topic of one or more of their training sessions.

The responsibility of hosting the training session is then given to one or more of the team's members, who prepare to either host the training session themselves or they can call in an expert on the topic. This way the knowledge is brought into the training session and can be analyzed and interpreted by each team member as individuals, but also as a team through dialogue and exercises.

However, students cannot only focus on gathering knowledge that is already out there; through innovating and working on different types of projects they also gain new knowledge that either is not readily available or must be learned by doing.

#### ACTING

You cannot graduate from Proakatemia without analyzing and interpreting information and adapting it to real projects and client work, which is one of the reasons students who study here are often far more comfortable with turning a plan or concept into reality compared to their lecture-going counterparts. When a team full of student entrepreneurs is considering what to offer to the world to get their projects hours going, they need to innovate and then when they've got an idea they need to start the productization process of taking that idea and turning it into a viable and tempting product for their target audience. Customer acquisition is also an integral part of the process.

Working on different projects for different customers also brings us back to the EQF learning outcomes, as they include responsibility and being able to react to unexpected situations (Learning Opportunities and Qualifications in Europe, 2017), both of which are deeply integrated into project work. The contracts and payments from the customer to the students, or investments made by the students, force them to take responsibility for their own actions. Working with different customers will also naturally bring about situations the students were not prepared for nor expecting, thus forcing them to react to difficult situations with potentially high risks with very little time for preparation.

An important part of the acting in the Proakatemia curriculum also comes from working in a team. You are not only responsible for your own actions and the welfare of yourself, but your actions might affect the entire team.

#### BEING

Learning to work in a team and finding your own role within a team are amongst some of the most important being-related lessons Proakatemia offers to their students, along with learning to evaluate yourself and your actions.

These come naturally to some, but others might struggle, which is where the importance of teamwork and understanding each other comes into play. A good team must be able to support its members in any way possible and give them time and assistance in finding their roles and confidence in themselves.

Psychological capital is a term loved by curricula planners around the world now, and for a good reason. It is defined as "an individual's positive psychological state of development" by Luthans, Youssef and Avolio in their book Psychological Capital.

Psychological capital is commonly characterized by four different aspect of an individual: hope, resiliency, optimism, and self-efficacy (Luthans, Youssef and Avolio, 2007). It is something that can be nurtured and developed, and that is where TAMK and Proakatemia excel and other universities are following suit with curriculum changes to support the development of each individual's psychological capital.

Understanding the psychological capital gives everyone an opportunity to further improve themselves and allows the coaches here at Proakatemia to further the development of each student into responsibility-taking go-getters who are extremely resilient and confident in what they do. This entire process takes place within the core aspects of Proakatemia and its curriculum, from the optimism created by the team and the community to the projects that force the students to take responsibility and work hard to succeed.

## CONCLUSION

Though some might think the curriculum of Proakatemia is either non-existent or that it doesn't follow the guidelines set by the European Union, the truth is that the reason it seems so different is the way it is applied in use.

Students are given the freedom of choice for the way they go through their path as a team entrepreneur, which comes with great responsibility for their own actions and the actions of their team.

Knowing, acting and being come to life in different aspects of everyday life, and while psychological capital is a key in developing current curricula, at Proakatemia it becomes a natural focus of development, regardless of whether the students even know or understand the concept of psychological capital.

A competence-based curriculum allows the students to develop at their own pace and, due to the high levels of motivation born from the responsibility for their own actions and from the team, that pace is usually very fast.

The program appreciates the individual's ability to constantly learn as they go, and never stop learning, because if one stops learning after they graduate they will one day find themselves in need of a whole new round of education. In short, the curriculum here at Proakatemia focuses on how the students use the knowledge they gather and allow them to freely choose the steps they wish to wake in their professional development – and makes them responsible for those choices. Bibliography: Barnett, R. and Coate, K. (2004). Engaging the curriculum in higher education. 1st ed. Maidenhead: Open University Press.

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# 81



# NO EXAMS, NO GRADES, NO LECTURES

JUST FUN AND GAMES?





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While the topic our dialogue session held in Proakatemia's Academic Adventures might be slightly provocative, our intention is not to claim that exams, lectures, and grades do not have any place in modern education. Instead we explored the possibilities and realities offered by a learning environment that does not rely on these structures. In addition to looking at the offered possibilities, we also try to create insights on the requirements of building such an environment.

Proakatemia offers an environment where the students can graduate with a Bachelor's degree without attending any lectures after they have successfully completed their first-year studies. The possibility to go through studies without any extra lectures is possible for all the students in Proakatemia, but only a few of them go through their studies without attending at least one or few courses outside Proakatemia. Studying without lectures, grades and exams provides the students with an opportunity to find out the best ways they can learn on an individual basis without taking away any ways to approach learning and acquiring the information they need in their studies. On the contrary, the opportunity to make meaningful decisions related to all parts of their studies leads the students to feel more committed to any lectures they might attend during their studies.

Replacing traditional forms of higher education, such as lectures and exams, with learning by doing projects, attending seminars and having long dialogue sessions with teammates can be observed as the students having an easy time. While the dynamics are certainly changed, such a claim would downplay the amount of work and preparation needed for successfully navigating through the studies at Proakatemia. While the methods involved in studying might look like it's all fun and games, the reality is quite the opposite. Entrepreneurship and team-based learning are not always fun and easy but require a high amount focus and commitment.

In this article, we will consider three different themes related to the topic and approach them with the combined perspective of a Proakatemia coach and student combined with the viewpoints of the quests at Academic Adventures. The material and thoughts were gathered in a three-hour dialogue session with the quests, and the information gathered in the session has been supported by the experiences of coaching staff at Proakatemia after the session was closed.

## MEASURING LEARNING

One of the main differences between the Proakatemia model and more traditional ways to study in universities is the lack of grades and exams in most parts of the degree programme. This usually provokes the question of how we measure learning and compare the success of our students. The answer lies in continuous feedback that the students get from various parties. They get feedback from their teammates, Proakatemia as a community, their team coach and most importantly from their clients. The students then use all this information as a guide for their self-assessment. Therefore, we feel that in Proakatemia there is no need for static grades in addition to all the dynamic feedback they will receive during their journey through Proakatemia.

Continuous feedback and assessment by results requires the students to either maintain a level of expertise they are content with or improve on the skillsets they have acquired. In many cases, the process of improvement is hidden to the student until the moment they should face a new kind of problem. A solution that provides value to a customer and therefore brings in money for the team enterprise gives a more wholesome look at the skills and abilities of an individual student than any grade could.

Grading an activity promotes certain boundaries related to the upper or lower end of the assessment values. How should we grade an activity that provides better results than the maximum grade possible? To allow the student to realize the potential of improvement and what could be achieved with added knowledge or hard work, they must have a free view on the possibilities ahead of them. The effect is multiplied in the team environment where an individual can receive several opinions and perspectives on how to improve, why they should commit more resources to a certain field or on the value of the skill or knowledge they are pursuing. Taking grades out of the team environment forces the team members to evaluate each other based on concrete results and achievements on an individual basis. The coach plays an important role of setting healthy boundaries and supporting the individual members of the team, as well as supporting the whole team on setting goals and evaluating gained results. The lack of grades does not mean that there is no measurement or comparison, but instead these activities are based on a wider array of information than a static grade.

The use of grades is often argued to bring more opportunities for a graduating student to showcase their abilities, but the lack of grades has not stopped the students of Proakatemia from achieving their goals after graduation. The networks, experience and feedback gained during studies also provides the students with a greater ability to evaluate their own value for the market as an employer or an entrepreneur. The results achieved during their studies work as a better way to approach possible employers than a set of grades could. This process may require more work and more personal approach but, then again, the students of Proakatemia are often willing to commit to their pursuit of the next step.

Even with all the freedom and flexibility, the students of Proakatemia will receive two grades during their studies. They will write a bachelor's thesis that will be graded in the same way as a normal bachelor's student's thesis would be. In addition to the thesis, the students will complete a 24-hour innovation challenge as a team and the result they are able to come up with in that timeframe will be graded. The challenge always involves a company outside Proakatemia and they will commit to the task monetarily. The company will pay the teams per the grade they get for the assignment. With a grade of 1 the team will end up paying the customer for the time they wasted but a grade of 5 will bring several thousand euros to the team. The combination of grading and monetary involvement combines the motivating factors of both systems to this final task for the teams.

## CHOICE VS EASY WAY

The model of learning in Proakatemia promotes freedom in the daily lives of students. This freedom is applied to most of their schedules, choice of books to read, and choice of projects to do. Such freedom brings along a heavy responsibility as each individual student must actively participate in choosing how and what to learn on daily basis. There are some exceptions such as the two four-hour dialogues sessions with the whole team and coach present and some events that require the whole community to be present. But besides these, the students have a total freedom on how to plan their week.

To keep track of what is going on in Proakatemia and the learning processes of individual students an excel sheet was created in the early years of Proakatemia. All students mark their hours spent on team meetings, projects, seminars, reading books, and such on hour-by-hour basis. The sheet then calculates the number of hours spent in total and divides it to courses based on the topics the students have assigned the hours to. Having such an open and flexible way to follow the workload of individual students comes with a possibility and opportunity to abuse the system, but the excel sheets are also visible to other team members and the team coach so any abnormalities can be seen quite quickly.

The ability to track and build their process during the whole journey through Proakatemia creates contact points and supporting structures instead of constant surveillance or strict structure of lectures and grades. The students know what is expected from them and the progress is reflected upon with the team coach at least twice a year, in addition to constant self-evaluation and feedback from the team. Following that, studies progress, every individual student is focusing on topics and issues that matter to them, and the team becomes a self-governing entity that aims to support everyone included as well as it can be done.

It's quite easy to observe that in an environment such as Proakatemia the choices and freedom are the main motivators for the students. From the first day on they must balance their life around free time and work while concentrating on a process that lasts two and a half years. The freedom doesn't mean that it would be easy to study at Proakatemia. If you ask our students, the opposite might be more true. The freedom to choose what to do to pursue their goals can sometimes mean workloads that are significantly higher than they would face in a more traditional way of learning.

> "Instead of concentrating on finding the easiest way through their studies, the students learn to find the wisest way to approach their current target."

You don't have to be a constantly over achieving student to survive in Proakatemia though. As the process takes two and a half years there are more than enough opportunities to slow down or even stop and choose a new path.

Most of the students do not settle on surviving though as they have chosen the programme to find out how to thrive and manifest their true potential. The expectation to take responsibility and commit to thriving can be seen in every team at some point of their process.

To assist the students in their journey towards their goals, a tool called a learning contract is used. In this contract the students go through their life and underlying motivations and the contract is shared openly with their team and team coach. With the help of the learning contract every individual in the team can support each other in hard times or when they encounter any kind of doubts during their studies. It also provides the team coach with a tool to reflect upon the development of individual students.

All the free choices that students have will also put the teacher or coach under a new kind of pressure. Instead of knowing a few sets of slides that can be used again and again, the individual taking the role of a teacher or coach in this environment has to be as flexible as the system is. As the environment around is changing constantly and in rapid pace, the coaches should adapt as well. As such the focus for the coach is to observe, support and question the process of the students instead of providing them with all the information they might need. There will be someone who has the more recent information available anyway. It can be said that the coach has to meet the students where they are, professionally and emotionally, instead of waiting them to adapt to his or her own current state of mind.

Shared goals and ambitions also help lazy or unmotivated students to get to the same level with other students in the team or alternatively it helps them to realize that Proakatemia is not the correct place for them to study. Should this happen, the students have the possibility to continue their studies in the traditional business administration programme.

## LEARNING SHOULD BE FUN BUT STILL CHALLENGING

Another fundamental part of studying at Proakatemia is the environment that promotes having fun while working and studying. This is underlined by several annual events where the whole community gathers together to celebrate a special occasion like graduating of teams or the birthday of Proakatemia. These informal events tend to gather almost all students and coaches as well as alumni who have graduated years ago, and that is what makes the events special. There might not be a better way to end an academic year than to celebrate the achievements that individuals and teams have reached and at the same time laugh together at the mistakes that were made along the year.

# "Having fun is an active part of the social structure of Proakatemia."

It shows in daily face-to-face interaction between individuals, be it students or coaches, as well as the daily routines of the teams. Bonding through shared enjoyment and leisure is as crucial as is bonding through challenges and hardships. This creates a more complete emotional attachment to learning and it seems to provide support for the students to challenge themselves in more diverse ways. The intense rhythm of studying in Proakatemia more than often leads to students spending time with team members during their days outside Proakatemia as well.

Having fun together and creating different kind of games work also to make learning and results tangible for anyone to see, thus reinforcing the communication inside and outside the community. Deep involvement in the community works as a supporting structure for building courage and going outside comfort zones for the students to meet tasks that are more challenging. The shared times of fun and enjoyment also help to establish a bond of trust and care between the coach and team members.

Studying at Proakatemia is not just fooling around and laughing at things that have little to no value for anyone. The fun of learning comes from the balancing act between moments of total freedom and tougher times that may be rather hard to go through. Going between feelings on both ends of the spectrum can easily be emotionally straining and that is why the first year of studying at Proakatemia focuses on building the environment of trust and courage between team members.

Several entrepreneurs who have graduated from Proakatemia have continued the tradition of dialogue sessions, face-to-face feedback, and learning contracts in their own companies. Trustworthy environment where everyone can choose the best ways to learn and develop while producing tangible results is something to strive for in any environment.



# STUDENT'S FREEDOM AND RESPONSIBILITY





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## TEAMPRENEUR'S (STUDENT'S) POINT OF VIEW

During Academic Adventures International Week at Proakatemia we, me and coach Tarja Tittonen, held a training session about student's freedom and responsibility. I, as a teampreneur or student, prepared and led the training session and Tarja Tittonen, the coach, was present observing this training session.

Students' freedom and responsibility is a very important matter while studying in Proakatemia. Students are given so much freedom in their studies, but along the freedom, comes the responsibility as well. Students are free as birds to acquire projects that they want and pursue the dreams that they have. They are also free to do all this in their own way. Although the main goals in learning are set by Tampere University of Applied Sciences' study program, students in Proakatemia can find their own way of reaching the learning goals. The training session was held mainly about our responsibilities as students, the coaches' roles in our learning process versus teachers' roles at the main campus, and what students' freedom in studies really means. There was about 15 of our international guests attending to this training session. Apparently, this is a very interesting matter to someone who is coming from outside of Proakatemia.

> "In Proakatemia you will become a part of team and our inspiring community of entrepreneurs. The rest is up to you." (Proakatemia 2017).

Yes, we really are given a team, inspiring environment and a coach and that's pretty much it in the beginning. We really have to figure everything out by ourselves and our coach is probably not going to give us any straight answers. That is the absolute beauty of this learning method that makes us students learn and develop so much.

During the training session, there was a lot of discussion about topics given, and our guests naturally had many questions. We introduced them to our conventions about study planning, acquiring projects, marking down all done work hours, teamwork and feedback giving and receiving. Our guests had many questions especially about the hour-marking system. They wondered how it could possibly work that students really take care of their own studies and we did our best explaining how we make it work in Proakatemia.

Feedback giving and studying without grades delivered many questions as well and that is why I wanted to introduce the Motorola (Waterman 1994, 256 – 262), a feedback meth-



od that we commonly use at Proakatemia. Motorola consists of four questions:

1.	What went well?
2.	What could be improved?
3.	What did I learn?
4.	What am I going to exploit in practise?

After the training session, the participants of the Academic Adventures got to answer these questions as well and I got to have valuable feedback from their points of view.

Based on the feedback, our guests were impressed about a student taking the responsibility of the training session, as well, and it reflected the division of work and students' responsibility in their studies perfectly.

# COACH'S POINT OF VIEW

Every student in Proakatemia has the freedom to act and perform according to his or her own aspirations. However, the great amount of freedom also means a strong responsibility for their performance and towards the enterprise of their team. Competence targets set for learning are equal to the other students aiming for the same degree, though the liberty and the responsibility for achieving the competence targets lay with the Proakatemia students themselves. Selfdetermination and motivation form the base for learning in Proakatemia.

Every student in Proakatemia compiles their own learning agreement biannually, in which they define their learning

targets, how they will measure these targets and how they will know the targets are accomplished, and are further willing to fight for these set targets. To study in Proakatemia, the student is required to have a strong self-determination, commitment and a brave attitude towards learning by doing. Moreover, the students are obliged to reflect their own performance and actions.

The core for Edward Dec's self-determination theory is based on the idea of humans as proactive actors aiming to fulfil themselves and the chosen targets. According to this theory, humans have three psychological basic need essential for their growth and well-being. These basic needs are:

Autonomy. The urge of having the liberty to decide on one's own actions. The motivation for action is inherent.

Competence. The experience of knowing one's own capabilities, being able to concur challenges and achieving something.

Relatedness. The universal need of being in interaction with others. We care for others and want in return be cared for.

Motivation is the acting force that directs and tunes into performance. The success, however, is then based on one's capabilities. The level of motivation varies greatly in different situations and over time. Additionally, it can be intrinsic or extrinsic. Intrinsic motivation derives from the humans themselves and leads them further to seek to do the things they are inspired by.

As Peter Senge has stated:

"The most powerful learning comes from direct experience by taking an action and seeing the consequences of that action."

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# MEETING THE CHALLENGES OF USER-DRIVEN RESEARCH, DEVELOPMENT, AND INNOVATION IN UNIVERSITIES OF APPLIED SCIENCES



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## REQUIREMENTS FOR THE RESEARCH, DEVELOPMENT AND INNOVATION PROCESS

### INTEGRATION TO THE EDUCATION PROCESS

Universities of applied sciences (UASs) offer practice-oriented higher education resulting typically with a bachelor level degree. They play an important role in our society where jobs in all sectors have become more demanding due to global competition and the use of advanced ICT. Higher education is a common requirement even for operational level jobs. In Finland, a country of 5 million inhabitants, roughly 20.000 students graduate yearly from UASs.

It is important that UAS students have opportunities to get involved in the real activities of their future employers during their studies. They will then be better prepared for the challenges of their jobs when they get employed after graduation. UASs should create such opportunities for their students by research, development and innovation (RDI) co-operation with companies and public organizations. This RDI co-operation differs from the traditional approach of universities because its objectives are more closely linked to daily operational challenges than scientific challenges. Involvement in RDI should be a natural part of studies and widely integrated to the contents of study courses.

#### **REGIONAL DEVELOPMENT**

UASs can be seen as regional centers of excellence due to their highly qualified multidisciplinary teaching staff, well-equipped laboratories and the high volume of students possessing latest know-how. The challenge is to make the expertise and facilities easily available to companies and public organizations of the region to improve their RDI capability. The UAS could take the role of the RDI department of the partner organization, providing access to multidisciplinary excellence and a variety of facilities in an extent which is not possible for a single company or public organization with limited resources for RDI.

#### SOLUTIONS FOR THE REAL LIFE

Because of the practice-driven nature of their education activities, UASs should have a continuous and intensive interaction with their partner companies and public organizations. When teaching staff and students are in daily contact with those partners, new problems and challenges from the real life come up all the time. We need to organize the activities of UAS staff and students in such a way that useful solutions to those problems and challenges can be produced cost-efficiently. Integration of RDI and study courses should facilitate serious work on real problems and not just demonstration of ideas.

### PARTNERSHIPS AND CUSTOMER ORIENTED ACTIVITIES

### UNIVERSITY AS AN ACTIVE MEMBER OF COMPENTENCE ECOSYSTEM

There are plenty of reasons and needs for dialogue and co-operation between the UAS the companies, public organizations and third sector organizations of the region. Firstly, it is important to ensure the relevance of the education given by the UAS by a constant dialogue with the future employers of the students. Secondly, one duty of the Finnish UAS's is to support regional development in their own regions. Thirdly, it is increasingly important for the UAS's to get external funding to complement the funding coming from the Finnish Ministry of Education and Culture.

UAS's are institutions with a high potential for working on multidisciplinary topics. This should be reflected in the partnerships between UAS's and their customers. Multidisciplinary approach is a way to look for better solutions and increased competitiveness.

All members of the teaching staff are in constant interaction with companies, public organizations and third sector organizations of their fields of expertise. In addition, the top management and all members of the middle management are involved in various networks which lead to a lot of contacts and enquiries for co-operation. Furthermore, the RDI and services department staff are constantly in contact with potential partners and customers. It is very challenging to manage and coordinate all this and to develop the UAS to a customer-oriented direction.

There is a clear need for coordinated efforts and shared practices for the interaction with partners and customers. Their objective is to make sure that all contacts are done in a professional manner with good awareness of relevant earlier interactions with the same partner or customer organization.

### **KEY ACCOUNT APPROACH**

Three types of partnerships can be recognized based on the level and content of cooperation: educational partnership, development partnership and strategic partnership. The largest group includes organizations that mainly cooperate with a single study programme and faculty. The importance of these educational partnerships is mainly seen in supporting learning process and it is based on agreement of mutual understanding between partners. Development partnerships are wider including cooperation with several faculties. They are based on customer needs and, at the same time, UAS's own strategic priorities. The core of these contract based partnerships is a jointly written development plan leading to cumulative learning for both parties. In strategic partnerships, the cooperation is seen essential from the perspective of the whole UAS with a mission targeting both the national and international levels.
As the result of this approach, the needs of clients can be taken into account better, long term development plans are easier to schedule, and satisfaction of all actors in cooperation is improved. However, certain arrangements are needed inside the UAS in order to make sure that all members of the staff follow this common approach. Distributed responsibility of marketing, sales and customer relationships needs to be facilitated and supported appropriately.

One solution is to have a key account teacher (KAT) in each educational unit who is responsible for the partner-oriented and customer-oriented activities of the unit. Together with other customer-oriented professionals from RDI, information, and recruitment services they form a larger team for customer-oriented work. The strategic management at the UAS level is done by the customer director together with the directors of educational departments. The KAT does not have to be involved in all interactions with partners and customers, but he or she should make sure that the common approach is always used. Once a month, the KAT's gather together to report, discuss and exchange experiences.

#### SHARING OF CUSTOMER INFORMATION

One essential step towards high quality customer oriented working culture is sharing customer information between university departments and staff members. When being in contact with a partner or customer organization, it is important to know about relevant earlier interactions with the organization. Otherwise, it could happen that many meetings or phone contacts take place with the same people from the partner or customer organization without the UAS participants knowing from each other. It could also happen that the contact person in the partner or customer organization mentions an earlier co-operation which the UAS participants know nothing about.

A modern approach for the sharing of customer information is to use a customer information management system with social media features. An example of such a system is the Oiva system used by TAMK.

Oiva is an information system which gathers to one shared database all the information associated with partner and customer interactions. This makes the interactions transparent and visible to all staff members and makes the management of contact information more efficient. It also provides a shared workspace for the management of customer oriented work and the associated information.

# IDENTIFICATION AND REFINEMENT OF PROJECT IDEAS

### INTERACTION WITH COMPANIES, THE PUBLIC SECTOR AND THE THIRD SECTOR

Lots of problems and development needs are identified when UAS staff and students interact with companies, public organizations and the third sector as part of their daily activities. Providing valid and useful solutions to real problems often requires an RDI project approach. The identified need of the partner organization should be considered carefully to estimate the amount and complexity of the required RDI effort. Sometimes students can solve the problem within their



project-based study courses but often an RDI project with designated project funding is needed.

#### TOPICS EMERGING FROM THE EDUCATION PROCESS

Project ideas also emerge from the internal discussions of UAS staff and students. Those ideas are often related to the topics of study courses and the latest state-of-the-art and they are very well in line with the strategic priorities of the UAS. Many ideas deal with learning environments. However, there are also ideas which have no connection to the education process. They can just come "out of the clear blue sky" but often they emerge from the private lives and personal contacts of people.

#### THE PROJECT IDEA PROCESS

UASs are often big multidisciplinary organizations. A process is needed for the objective evaluation and ranking of the ideas dealing with very different topics. In TAMK, this evaluation and ranking is done by the so-called idea group composed of the vice presidents of TAMK who gather for this every second Friday.

Ideas are submitted for evaluation and ranking electronically by filling in a specific form. In addition to filling in basic information about the contents and size of the proposed project and proposed sources for external funding, the following questions dealing with the strategic importance of the proposed project have to be answered: \* How does the project strengthen the strategic themes of the UAS?

\* How does the project make the UAS more international?

\* How is the project integrated to studies and teaching?

\* How does the project meet the needs of regional development and the UAS's partner organizations?

\* How does the project strengthen the UAS's strategic partnerships?

Based on the submitted information, the idea group decides if a project idea can proceed to the preparation stage. Negative decision means that there is no permission to go on with the project idea. Positive decision means that the person in charge of the project idea has the permission to proceed with the idea by following a standard sequence of steps. Those steps are necessary to ensure the availability of organizational support and the required time and resources to prepare a high quality project proposal for external funding.

Standard steps to facilitate the efforts leading form idea to proposal:

1. Read the comments and instructions given by the idea group from their memo and take them into account.

2. Make sure that all those who should participate in the project proposal preparation work get permission from their superiors for that.



**3.** Contact the head of RDI department to agree on the maximum budget and duration for the project proposal preparation work.

4. Fill in the excel sheet with budget and person hour information.

5. Send the excel sheet by email to all the recipients of the initial idea group decision.

6. The project office opens a work id for the recording and monitoring of the person hours spent in the project proposal preparation work.

7. Go on with the project proposal preparation work.

8. When the project proposal preparation work has been completed, the vice president of RDI makes the decision to send the funding proposal to the funding organization.

### FORMATION OF MULTIDISCIPLINARY TEAMS FOR PROJECT PREPARATION

It is important to consider the multidisciplinary aspect of the project idea already in the early stages. Experts of different fields can be found in the different departments of the UAS, and it is possible to involve them in discussions on the project idea and in the actual proposal writing work. For example, a project idea on the improvement of health care services for the elderly might involve aspects dealing with technology, business and culture. The formation of multidisciplinary teams should be encouraged and made possible by practical arrangements.

# CUMULATION OF EXPERTISE

### TEACHING STAFF AND STUDENTS AS APPLICATION DOMAIN EXPERTS

It is necessary to consider the impact of RDI activities on the competencies and expertise at the level of individuals and at the organizational level. The strategic priorities of the university can be supported by RDI projects only if the topics of the projects are in line with the expertise and professional development goals of the teaching staff.

From this point of view, RDI projects should always be carried out in such a way that the application domain expertise comes from the participating members of teaching staff and their students. It might sometimes be easier just to hire a domain expert to work on the project as a member of the RDI service staff but that is not a sustainable solution. It is very difficult to secure continued project funding for such experts. As a result, they normally leave the university after some time and most of the expertise and knowledge resulting from the project is lost.

### RESEARCH AND DEVELOPMENT SERVICES AS EXPERTS OF PROJECT WORK

Allocating the work to teaching staff and their students is still not the complete solution. It is very challenging to carry out a multi-partner RDI project in a professional manner. Teaching staff do not usually have the necessary RDI project experience and expertise for that. Furthermore, it is not useful to train them to become project professionals because most of them participate in RDI activities only for a single project and shift their focus on other professional activities when the project ends.

Having a small group of RDI project professionals to run the projects is one way to deal with this problem. They have the skills to ensure that there is a work plan with realistic objectives, resources and timetables for each subtask. They also know good practices for project management and how to prepare materials and organize meetings and events for presenting the project and getting feedback and guidance. These RDI project professionals do not have to be experts of the domain but preferably individuals with a multi-disciplinary background and an ability to participate in discussions on the contents of the project from that point of view.

## PROJECT OFFICE AS EXPERTS OF FUNDING AND FINANCIAL ASPECTS

Multi-partner projects are often funded by public funding organizations in the context of strategic research programs or regional development programs. Examples of such funding organizations and schemes are the Finnish Funding Agency for Technology and Innovation, the European Regional Development Fund (ERDF) and the EU Framework Programme for Research and Innovation (Horizon 2020).

Each funding scheme has its own specific rules for the administration and financial management of projects. One solution is to have designated personnel to deal with the administrative and financial details and practices of publicly funded projects. Their expertise cumulates gradually by being involved in numerous projects dealing with different domains but similar administrative and financial rules.

# KNOWLEDGE TRANSFER TO THE USERS IN THE PRIVATE AND PUBLIC SECTORS

#### INVOLVEMENT OF USERS AND USER ORGANIZATIONS

Universities of applied sciences have an important educational role in their regions. They serve as suppliers of skilled young graduates and re-educated professionals to the companies and public organizations of the region. This educational role leads to a natural close link between the UAS and these employer organizations. It is easy to carry out discussions with them about the challenges that they are facing now and in the future, and how those challenges could be tackled by joint RDI activities with the UAS.

The path to joint RDI activities can be such that the company or public organization is first invited to an event of a running project. It is very good from this point of view to include open events in the work plans of projects. After this kind of first exposure to the RDI side of the activities of the UAS, it is easier to be in touch again with deeper co-operation in mind.

#### THE LIVING LAB APPROACH

In order to reach better results in education and RDI, UASs have a clear need to get closer to the real needs of enterprises, public organizations and individual citizens. The best way to achieve that is to step out of the university building and start to teach and develop outside in the middle of the daily activities of businesses and people.

In the living lab approach, students learn by doing through participation in development projects which are carried out in locations outside the university in intensive interaction with the end users of the product or service under development. Even a short project of that kind can produce important and innovative results. Sometimes a need is identified for a bigger and more profound development project. In that case, it is easy to take the next steps towards such an externally funded project, typically involving the preparation of a joint proposal for external funding, because the basis for working together has already been established.

# DISSEMINATION (PUBLICATIONS ETC.)

Traditionally, knowledge transfer was done by writing articles, conference presentations and books about the results of development projects. This is still important although the world has changed in many ways. A high quality publication is still the only way to explain in detail what was done and achieved. Publications are also important as evidence of excellence. The university series of publications is a good forum for publishing RDI results. There are certain guidelines to be followed but the control of the editing process stays within the university. University publications are relatively easy to find using the different search tools available in the internet. However, scientific and professional publications have a wider audience of regular readers who are professionals of the field. Therefore, it is often worth the effort to propose an article to such a publication.

However, there are new ways of knowledge transfer which in many cases are more efficient than traditional publications. Project web pages are nowadays a standard practice. The results can be made available there in the form of downloadable documents of even as videos or interactive applications. In addition, social media can be used to spread the word about the web pages and the existence of new and interesting results there.

#### STUDENTS AS YOUNG PROFESSIONALS

We must not forget that knowledge transfer from universities to companies and society happens largely through the graduating young professionals who get jobs in all kinds of organizations and bring the latest knowledge with them. Therefore, it is important to arrange possibilities for the students to participate in RDI activities during their studies. In addition, the results should be integrated to teaching materials whenever possible.

# INNOVATION PROCESS TO TURN IDEAS INTO BUSINESS

#### INVENTIONS AND BUSINESS IDEAS

Students of higher education institutions (HEI's) represent a big and weakly utilized innovation capacity. In 2009, there were 48 HEI's in Finland: 20 universities and 28 UAS's. The total number of HEI students in Finland was about 313 000. There is a need for an innovation-friendly atmosphere and a good selection of support services to take the innovation potential of HEI students into full use to develop new solutions for the society and organizations in the private and public sectors.

Some ideas are purely business ideas. In such cases, the product or service to be delivered is already well known and well defined, and the required activities are focused on business development.

However, many ideas deal with ways to improve current products, services and working practices, and what kind of completely new solutions could be useful. Then, preliminary steps need to be taken before business development can be started. These idea–refining steps should be appropriately integrated in the education and R&D processes of the HEI.

#### STUDY PROGRAMS AND IDEA REFINEMENT

It is not easy to modify study programs to fulfill the emerging competency requirements. In particular, engineering is a domain where regulations on entities such as machines, bridges and buildings require that students gain a thorough understanding of the behavior of structures and materials. This takes a lot of time. Health care is also a domain with regulations and associated requirements on the content of study programs. It is hard to add new courses on R&D, innovation and entrepreneurship into the studies if none of the existing courses can be removed.

Looking at the contents of examples and exercises within each course might be a better approach. A student could be linked to a specific case study already in the first study period of his or her studies. The student would then use this case study as an environment for examples and exercises in all his or her study courses. The case study could be a specific joint theme of the university and a company, or it could be a product or business idea of the student himself or herself.

In the case of a product or business idea, each study course would then mean a small step forward as some aspect of the idea would get studied in detail. In the later stages of studies, bigger steps could be taken in the form of project courses and practical training periods. Finally, the student would be able to leave the university not only with a degree but also with a well-developed idea waiting to be turned into business.

The Finnish legislation on inventions requires that HEI's follow given practices in invention issues. The Act on the Rights in Inventions made at Higher Education Institutions 369/2006 came into force in 2007. The purpose of the act is to promote the identification, protection and exploitation of inventions created in Finnish HEI's in a way which is good for the inventor, the HEI, and society.

The legislation is one driving force when a HEI considers how to promote such activities of their students and staff which are dealing with innovations and entrepreneurship. Another driving force is the evaluation criteria set by the Finnish Ministry of Education for HEI's. The number of innovations is included in this criteria as well as the number of new companies. The underlying philosophy in both the legislation and the evaluation criteria is that a modern HEI should, in addition to educating professionals, also be a source of new innovations and businesses.

In order to efficiently deal with all the ideas coming from students and staff, standardized procedures are needed. The first step is to go through the idea with the inventor and to make sure that the idea is documented clearly and with sufficient detail to enable detailed technical discussions with specialists. A network of specialists can be formed from the teaching staff of the UAS to support the innovation process. Usually two or three specialists are selected from this network to participate in the technical discussions on the feasibility of the idea. If the discussions with the inventor and with the specialists indicate that the idea is worth further development, more detailed considerations on IPR, markets and commercialization can be initiated. The goal is to solve all the issues on the way towards a commercial product.

### ROLE OF EXTERNAL EXPERTISE AND RELATED FUNDING INSTRUMENTS

When the idea is refined towards a credible product with realistic commercial perspectives, different kinds of technical expertise as well as business, marketing and legal expertise is needed. The students of a multidisciplinary HEI form a valuable source of "junior experts" to work on the refinement of the different aspects of an idea. However, external high-level expertise is also needed in order to make the correct choices and decisions from the viewpoint of global markets and latest technological developments.

Public funding instruments are necessary for bridging the gap between a refined idea and a commercial product. In Finland, various arrangements have been made during the years to make public funding available for this market-oriented work. For example, patenting expertise, market expertise on international markets and business planning expertise can be acquired. The following activities have been supported:

\* commercialization of publicly funded research results

\* establishment of commercialization services in universities and research institutes

\* promotion of cooperation between research organizations and companies

\* creation of successful and viable businesses through start-ups, spin-offs and technology transfer.

#### PATENTS AND AGREEMENTS

It is often very important to protect the IPR of the innovative product or service idea by patenting. In particular, technology and health are such domains where it is difficult to convince partners on the business potential of the idea if the patenting process has not been started. In case of public organizations such as HEI's, it is necessary to consider what the policy of the organization on the ownership of IPR is. One solution is that the HEI owns the IPR. In that case, the HEI should also have plans and resources to work on the exploitation of its IPR portfolio. There should be more income than costs from the portfolio.

Another solution is that the HEI does not take the ownership of IPR. In this case, the inventor has the ownership and should also take care of the costs of protecting the IPR. It is likely that the inventor is more motivated to spend time on the necessary idea refinement and commercialization steps if he or she expects to get substantial financial benefit as the result of successful commercialization of the invention.

The HEI and the inventor can also co-operate and agree on sharing the costs and benefits associated with the IPR and its protection. An agreement needs to be prepared which deals with the rights and responsibilities of both parties. One possibility is that the HEI covers the IPR protection costs and gets its money back from the income after commercialization, licensing or sales of the IPR. It can be agreed that the HEI also gets a share of the benefits, for example 30% of the benefits for ten years.

#### UNIVERSITY AS SHAREHOLDER

Some HEI's have decided to join the ownership of spin-off companies. In this case, a company is set up jointly by the inventor and the HEI and possibly other partners. Covering the costs of IPR protection can be seen as an investment by the HEI to the company. It can also be agreed that the company can use the facilities of the HEI with favorable conditions. Being a shareholder gives the HEI a possibility to participate in the decision making of the company. At some point, the HEI may decide to sell its shares in order to get its investment back and to gain some profit.

# EVALUATION AND CONTINUOUS IMPROVEMENT OF THE RESEARCH, DEVELOPMENT AND INNOVATION ACTIVITY

#### MONITORING OF PROJECT PROGRESS

According to the Finnish law on higher education, the RDI activities of UASs should support the educational activities of the UAS and contribute to the development of the region where the UAS is located. In addition, the projects should fulfil the objectives of the source of funding which is typically a R&D funding programme of a public body with lots of societal objectives and themes for development.

Each project has a steering group which monitors and guides the project. The steering group looks at the project work plan and follows the progress of the activities described there and the use of the project budget. In addition, it can discuss about possible needs to make changes to the project work plan and the allocation of the budget to partners and tasks. The steering group has typically 2-4 meetings per year. It is composed of senior representatives of the partner organizations. Sometimes also external experts are included to bring a wider perspective. The existence of a steering group does not fully cover the monitoring needs of the UAS. Separate monitoring and guidance is needed in relation to the strategic goals of the UAS. The criteria used on the project idea evaluation stage are a good starting point for this. They deal with the contribution of the project to the strategic R&D themes, strategic partnerships and internationalization of the UAS. In addition, attention is paid to efforts on integrating R&D with degree education.

One possible solution is to gather all project managers together for example once in every two months. The can be asked to fill in some information to a simple project monitoring table beforehand and to give a five minute speech on the importance of the project in the meeting.

#### FINAL EVALUATION

The final evaluation of the project should be a more thorough examination of the project and its results. It is not anymore possible to make changes on how the project was carried out and what results were produced. Therefore, the focus of the final evaluation should be on learning from the successes and failures of the project.

The same evaluation criteria can be applied as during the project but from a different point of view focusing on lessons learnt. In addition, archiving the project documentation should be discussed as well as plans for further work on the same topic or with the same partners in the form of a new RDI project.

#### CONTINUOUS IMPROVEMENT OF THE PROCESS

Issues requiring attention and further work on the improvement of the RDI process may arise in connection to project monitoring and evaluation activities. Whenever such issues are raised, they should be recorded in a list of process improvement needs. This list forms the basis for continuous improvement planning as part of RDI process quality assurance.

Feedback is another source of input for continuous improvement. Each project should collect feedback in the end of the project from project partners and stakeholders. A good way of collecting this feedback is a simple electronic form sent by email. The questions to be scored 1-4 should cover benefits, expertise, co-operation, timetable and quality of results.

At least once a year, a quality group formed of experienced RDI staff should go through all this input consisting of the collected feedback and the list of issues from project monitoring and evaluation. As a result, a yearly plan for improvements is made and its implementation started.

# FINAL REMARKS

Management and strategic development of the RDI activities of an UAS is a complex task. This article is an attempt to cover all the different aspects which should be considered by the management of an UAS willing to develop its RDI activities in a professional manner. The author would be very happy to receive feedback and comments on the practices suggested in this article.





# AFTERWORD

If you have had the possibility to read all the articles in this publication, you surely know the key factors of TAMK Proakatemia and R&D&I. The words coaching, freedom, trust, work and customers appear everywhere. The tools like motorola, learning contract and constant feedback cannot be missed.





Dreams are mentioned several times, too. The social media hashtag for Proakatemia is in Finnish #unelmienkoulu, which translates in English both as the dreamschool and as the school of dreams. It is fascinating that words like dreams, learning and school can be used together. If you really want to learn there is nothing that can stop you from doing it. Motivation, reaching for dreams makes you learn. This is what Proakatemia is all about. You are warmly welcome to visit us and find out more.

> www.tamk.fi www.tamk.fi/web/tamken/global-education www.proakatemia.fi



Academic Adventures International Week of Tampere University of Applied Sciences' Proakatemia and R&D&I Services was held in May 2017 in Tampere, Finland. The event gathered 37 participants from 12 countries to experience the topics of team learning, coaching, and implementing R&D&I work in universities and higher education institutions.

Since the week was an amazing adventure for the participants, the introductions and discussions around the topics are published in the pages of this summary. The summary begins by telling the basics of the theories and methods that are used in TAMK Proakatemia to help students of entrepreneurship to become professionals.

It opens views to the future business skills and describes the importance of the community. In the end the complexity of management and strategic development of the RDI activities of an educational institution are discussed.

The articles are written by the coaches and students of TAMK Proakatemia and by the R&D Director of TAMK.

Theories and Experiences on Team Learning







