

## **Approaches to Delivering Entrepreneurship Education**

**Kainu Ari-Pekka, Klaavu Antti, Laine Kari, Lähdeniemi Matti, Stenbäck Camilla**

## **1. Background for the research project**

This research project presents as a case study of building strategically co-operation between three universities for new way of teaching and learning entrepreneurship. The research is a part of ERDF funded SaTaVa project. The ERDF programme for western Finland carries out the Western Finland vision for 2015: Western Finland is the leading Finnish region in entrepreneurship and humane growth which is nationally and internationally attractive due to its special expertise and innovation. The aim of the project is to promote innovative preconditions of the participating institutes of higher education and research institutes by creating a common, entrepreneurship-supporting innovation and learning environment. The writers also make some conclusions based on the results and experiences gained already of SaTava project. Project started in autumn 2008 and will continue to end of year 2010. The goal of the project is to investigate the development challenges of teaching entrepreneurship in higher education. The main target for the project is to plan, to build and test a common innovative learning environment for entrepreneurship. The project partners are Satakunta University of Applied Sciences, Tampere University of Applied Sciences and Vaasa University of Applied Sciences. Participating universities fulfilling each other knowledge and are looking for the best practices for student driven entrepreneurship with the commitment of building a real enterprise not only studies for degree.

The traditional entrepreneurship education on the basic level has emphasized obligatoriness earlier. Every student is given the knowledge of the basic level about the entrepreneurship matters. However, this has not led to the increase in the university entrepreneurship. The authors explore three questions: how can a university develop an entrepreneurial environment, how can a university find potential students and teachers for stimulating cultural change and what are general learning points already to be gained from the experience of regional co-operation between universities? The main argument is that entrepreneurship education should be part of a strategic design of University curricula. The authors have several years' experiences of developing 'Entrepreneurial University', including the development of an entrepreneurship curriculum, innovative learning methods, funded projects for higher education entrepreneurship and managing business incubators.

**Keywords** entrepreneurship education, strategic entrepreneurship, student entrepreneurship

## 2. SataVa project - guidelines for new strategy - increasing entrepreneurship activity of the students

SaTaVa project is strongly related to the study of new pedagogical models and search for new ways of teaching in the participating institutions. The wide scope of entrepreneurial education sets high expectations for pedagogy in higher education, traditionally focused on the superiority of knowledge. The research is based on the view that the students' activities and aims outweigh the teachers' knowledge and ideas. The wide concept also integrates institutions and learning processes in the surrounding reality, extending the concept of a learning environment. Their significance may be perceived through the current learning environments and methods on one hand, and through constructions of personality and intelligence on the other. (Kyrö, Ripatti. 2006)

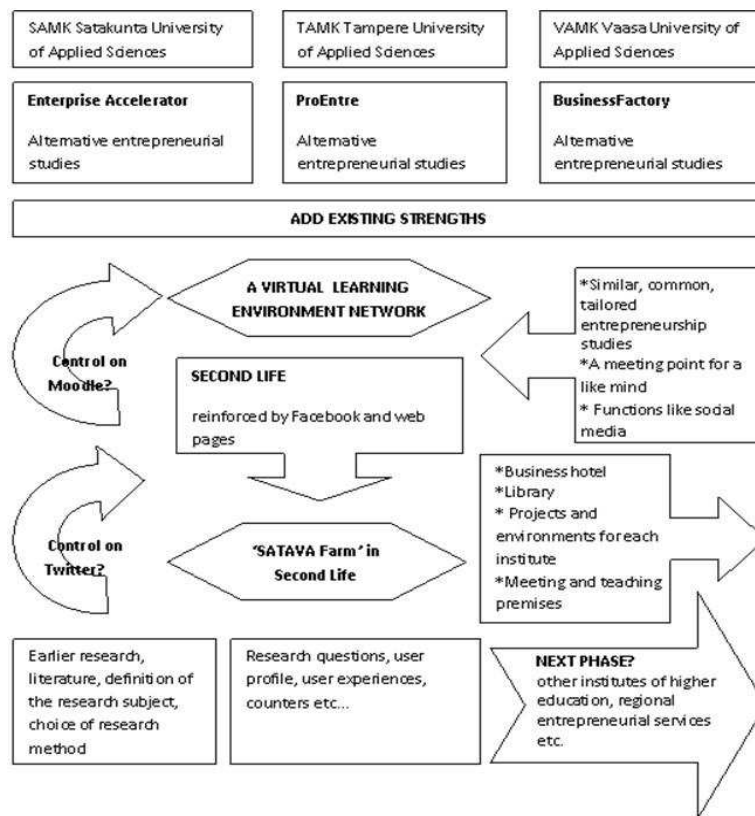


Figure 1. Structure of the project

The principal target groups of the project are the teaching and R & D staff of the participating universities of applied sciences, their present and future students, and the enterprises already running in the incubators. A group of potential student entrepreneurs has been identified through mappings. Among other things the project aims at experimenting with social media in promoting entrepreneurship in higher education, increasing the mobility of

students and the number of new enterprises launched during studies. The participants of the project are three institutes of higher education from three regions: Satakunta, Tampere, and Vaasa Universities of Applied Sciences. The project tests out new entrepreneurship-promoting activities which have not been tried before in the participating institutions. The entrepreneurship-promoting social media chosen for the project's use were Facebook and Second Life environments.

### **3. The SaTaVa learning environment on Second Life**

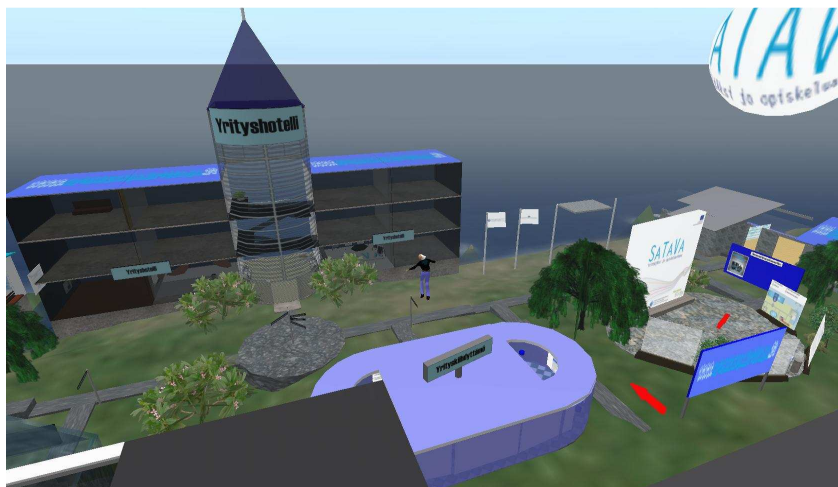
Higher education entrepreneurship is becoming a widely accepted point of view (Rae, D., Gee, S. & Moon, R. 2009), but there are still questions of how an institute of higher education could be entrepreneurial. Rae et al. present in their study some interesting views from Derby University where a teaching team operated in an entrepreneurial manner for five years in order to stimulate learning of entrepreneurship. In their article the researchers highlighted three themes: the way an institute of higher education can develop entrepreneurial culture, the way teachers working entrepreneurially can act as a catalyst for cultural change, and the learning experiences of this five year period. Using a similar model of thinking, SaTaVa-project built a virtual learning environment where everything would happen in an entrepreneurial manner and all surrounding material would stimulate entrepreneurship. Each of the SaTaVa participant institutes used Virtualia and Moodle, the more traditional virtual environments. The experiences from them were positive especially concerning the ease of uploading material on the environment and the impeccability of giving out tasks. However, they did not offer real-time communication with the entrepreneurship mentor, for instance, nor a meeting place for entrepreneurs. As a result of mapping we found four interesting environments: Twitter, Second Life, LinkedIn and Facebook. Considering the aims of the project and some user interface tests, we chose Second Life as the main development platform for the learning environment and Facebook as the project's marketing and discussion channel. The decision on Second Life was also supported by the facts that EduFinland<sup>1</sup> offered us a favourable lease rate for teaching and research purposes as well as user support and training in Finnish.

Second Life (from here onwards the SL learning environment) became the object of our research project. In the spring 2009 we rented a virtual region of 9000 m<sup>2</sup> from EduFinland in Second Life (<http://slurl.com/secondlife/EduFinland%20II/64/53/26/?title=SaTaVa>) for the use of the SaTaVa project. Our aim was to build on the

---

<sup>1</sup> The EduFinland Island ([SLurl: EduFinland/174/108/29](http://slurl.com/secondlife/EduFinland%20II/174/108/29)) created in Second Life by [Suomen eOppimiskeskus ry](http://www.suomenoppimiskeskus.fi/) offers an opportunity to get acquainted with the virtual environment and guidance without a great starting investment. Educational institutes may rent land from the EduFinland region for educational and research purposes and may use common premises. Suomen eOppimiskeskus ry is the responsible organisation for the regions' management and handles the payment transactions related to the region as well as organises user guidance. (<http://edufinland.fi/>)

region a virtual learning environment with an emphasis on entrepreneurship. At the moment, there are the buildings of Satakunta University of Applied Sciences Enterprise Accelerator and Innovation Learning Lab, the Entrepreneurship Library, a conference room, and the Business Hotel, all are located on our region. In the library there are downloadable electronic articles and guidebooks on entrepreneurship, founding a business, tax counselling, etc. available. The Business Hotel is meant to be used by the student entrepreneurs for their business presentations. There is also a SaTaVa Shop in the hotel that sells for example SaTaVa shirts Avatars. At the Innovation Learning Lab one can get further information of the ERDF project under the same name, or get acquainted with the OIBS website and for instance submit a business idea or look at ideas submitted by others. The Enterprise Accelerator offers further information about the services it produces and instructions on how to participate in the Accelerator's activities. The seaside view conference room provides Avatars with a free of charge environment for assembly.



Picture 1. The Business Hotel and Enterprise Accelerator located in the SaTaVa region  
(Photographer: Ari-Pekka Kainu, 2010)

There are good examples of how to use Second Life for training purposes. For example, the Faculty of Medicine of the Imperial College of London has a virtual hospital in Second Life, where students can examine virtual patients in a department of pulmonary medicines. At the Auckland University, virtual hospital medicine students get to practise working at an intensive care unit and play the role of a patient. ([www.med.helsinki.fi/tuke/tukevastiverkossa/arkisto/0902/090202.htm](http://www.med.helsinki.fi/tuke/tukevastiverkossa/arkisto/0902/090202.htm)). Sosiaalinen media oppimisen tukena (Social media as a support for learning) is a Finnish example of international network <http://sometu.ning.com/>. However, social media in teaching and learning receives also a lot of criticism. In his column in Opettaja magazine 49/2009 Dr Mikko Lehtonen, professor of Media Culture, criticise social media and especially its sociality. Here is a quote:

“Social media is a wet dream for the person making money on digital media. Participatory economics (a rising trumpery) saves wage costs, as the users of the media are also the content co-providers. Political corners are thrilled also. The opponents of globalisation have for years organised their actions over the net. Now one can find Facebook pages for political parties and individual politicians. Some bloggers have succeeded in making themselves known also in other media. “I blog, therefore I am!” Is social media therefore more individualising than socialising after all?

#### 4. First results of visitor counters in SaTaVa region

Since August 2009, the number of visitors has grown fast in SaTaVa region in Second Life. First launch took place in week 34, when we completed the Business Hotel and Library. In the beginning of March 2010, there have been more than hundred visitors (Avatars). Please note, that each Avatar is calculated only once. The most popular environment is the Entrepreneurship Library, where Avatars go and borrow to ‘loan’ articles and guide books for entrepreneurship. The second popular environment is the Enterprise Accelerator.

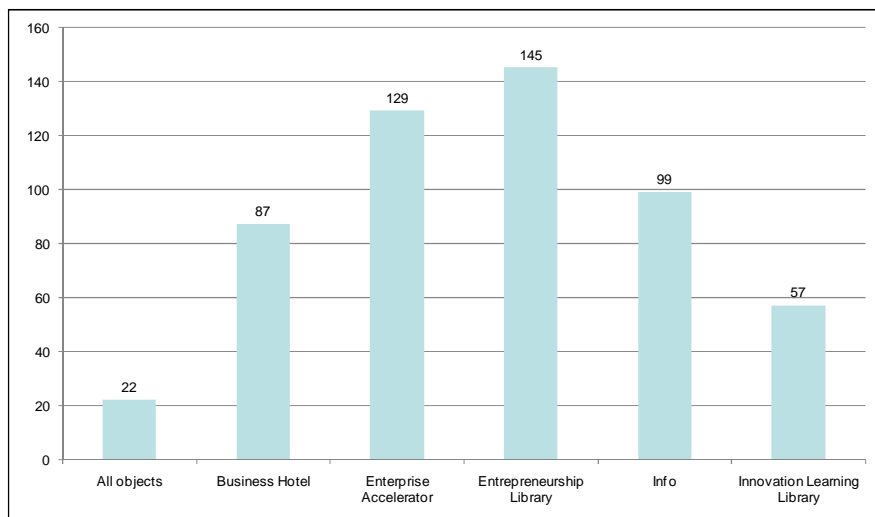


Figure 2. Avatar visitors in different places in SaTaVa region

The first results show that Avatars mainly visit one or two places when they come to region. In terms of future development, there is a challenge to build all the places more interactive one and with the existing virtual guide Avatar there.

## **5. Towards common entrepreneurship education strategy**

The overarching principle behind this paper is that entrepreneurship education activities are operated in a fashion that replicates the business environment. This means that clear plans would be developed, roles and responsibilities would be assigned, metrics would be agreed to measure the effectiveness of the various initiatives and the efficiencies achieved, and a spirit of entrepreneurial action is engendered amongst all stakeholders. It should be an exemplar of practising what one preaches. This means either, that behind these activities, there should be a clear Entrepreneurship Education Strategy.

From the literature we noticed that the learning methods employed in entrepreneurship education and training programmes vary considerably from lectures, presentations and handouts to e-learning and case study-based learning, with group discussion and role-plays. In addition, both traditional and non-traditional approaches to learning are still valid. The idea that the learning needs of entrepreneurs will vary at different stages of development has been acknowledged for some time. Some researchers underlying assumption for using audience segmentation was that educational objectives, subject matter and pedagogical approach might be expected to vary depending on the nature of the target audience. We writers believe that the combination of traditional classroom training, social media and e-learning, mentoring and on-the-job training and with the strong supported personal study plan for entrepreneurship, university can offer new perspectives for the student to develop entrepreneurial skills and get the best out of the whole learning process. The authors are building guidelines for new strategy for each other universities, which would lead to the increase entrepreneurship activity of the students.

### **5.1. Approaches to Delivering Entrepreneurship Education at Satakunta University of Applied Sciences, SAMK**

The Enterprise Accelerator of Satakunta University of Applied Sciences is a well known concept from real life. Enterprise Accelerator is an innovative pedagogical combination of research and development and higher education. It gives students the opportunity to become entrepreneurs already during their studies. Another option is to join in the accelerator activities with an already existing enterprise. Enterprise Accelerator has served student entrepreneurs in Satakunta University of Applied Sciences since 1997, with over 200 student entrepreneurs and over 170 enterprises from various disciplines. Nowadays nearly two new enterprises are

launched every month. The Finnish Ministry of Education awarded the Enterprise Accelerator of Satakunta University of Applied Sciences as a Centre of Excellence in Education 2005-2006.

The Enterprise Accelerator operates within all degree programs at Satakunta University of Applied Sciences. It helps students become entrepreneurs before their graduation. The Enterprise Accelerator helps students who have a business idea or an operating company. They will also be assisted in enterprise succession or in the acquisition of an enterprise. A cooperation agreement and an individual study plan in entrepreneurship will be prepared for each student in the Enterprise Accelerator.

The student will be supported by a mentor network. An expert mentor will encourage and advise the student entrepreneur. The student can obtain as many as 60 ECTS credits for completed studies related to the setting up and development of his or her own enterprise. The Enterprise Accelerator provides a unique opportunity for combining studying and entrepreneurship. Currently, the accelerator creates at least one enterprise each month.

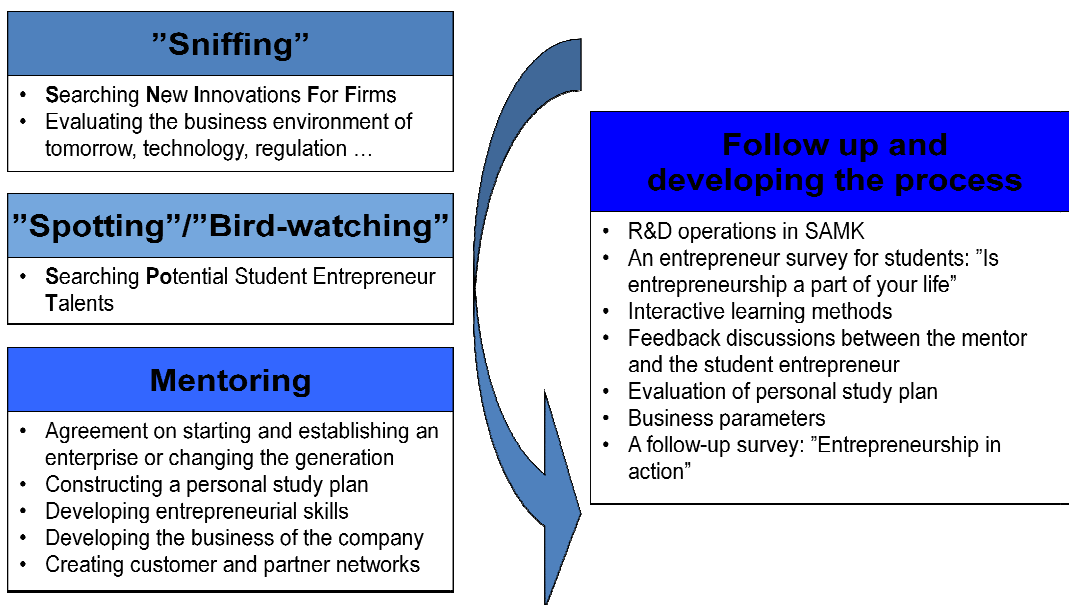


Figure 3. Incubator Process of Enterprise Accelerator - A modern combination of research and development and higher education

***Mentor minds your business***

Everybody needs support when starting an enterprise. A mentor is the key person to turn to when a beginner runs into problems. Enterprise Accelerator offers this kind of service to all its associates. Mentors work together with the student in developing and progressing. A business’s life cycle goes on long after the idea has been carried out as a functioning enterprise. The mentor’s role doesn’t end, even though the business is running smoothly. The whole mentoring idea is based on an agreement and written contract. Later on this can be changed to a



partnership. It doesn't obligate the student to anything, but adds extra value to the enterprise. Communication can be through e-learning environment and telephone conversations. The aim is to have longer face-to-face meetings at least twice a year.

### ***Centre of Excellence in Education***

The Ministry of Education designated the Enterprise Accelerator at Satakunta University of Applied Sciences a Centre of Excellence in Education in 2005–2006. This award was earned through hard work and made the entire university known as a good place to study. The evaluation of excellence in education aims to keep the level of education at universities of applied sciences high and to encourage them to long-term development work. According to the grounds given for the designation, the Enterprise Accelerator pursues constructive and persistent activities. Further-more, it has deepened and developed its innovative approach in the long term.

The Enterprise Accelerator is excellently integrated into the university's overall task by promoting entrepreneurship within the university's catchment area in a concrete manner. In particular, it should be accredited with the successful creation of new, sustainable business operations as one of the few promoters of entrepreneurship.

## **5.2. Approaches to Delivering Entrepreneurship Education at Tampere University of Applied Sciences, TAMK**

### ***Studies of the business of the first year: Practical business model***

Studies will be completed in companies set up for training purposes. Students make a business plan and establish a company. Students practice trading, bookkeeping and contractual matters. Also marketing communication forms a significant part of the studies. The students are divided into groups and every group is responsible for a particular segment of the business. The aim is for the students to get the general - level understanding of different segments of the business and entrepreneurship. The studying in the companies lasts one year. At the final stage of the first year there will be an examination and the level of competence of every student will be assessed. Objectives of the study modules in the students' training companies:

1. Having completed the module, the student is able to create a business plan for the company independently. He/She understands the basic rules of entrepreneurship. The student perceives how companies are managed in

practice.

2. The objective of the module is to make the business work. The student will understand the significance of sales and marketing in the operation of the company. Furthermore, he/she takes control over the routines of the business, such as financial management and agreements.

3. The student can assess the economic state of the company and understands how to make the company profitable. He/She understands how entrepreneurship can be developed and how his/her business can be expanded internationally. Furthermore, he/she understands how a company can be managed. In addition the student understands how to organize and delegate work. The student can also independently take responsibility for an exhibition stand as a business fair and represent his/her own business there.

4. The student will understand after the module how entrepreneurship can be developed further and how his/her business can be expanded nationally as well as internationally. Furthermore, he/she understands which factors are to be taken into consideration when developing company's business operations. The student understands basic concepts and basic rules of the national economy. He/She can manage basic measures which are related to the accounting period of the company.

### ***ProAkademia, a special unit of entrepreneurship***

ProAkademia is a unit studied during the second and third year. The students will found a company immediately at the beginning of another year of the studies. ProAkademia equips the student with good skills to work as an independent entrepreneur or employee of someone else's business. Some of the key focus areas of studies include project and teamwork. The student will find his focus by observing his/her own strengths and interests. His/Her personal learning path consists of this process. The studies consist of projects which carried out in the students' own companies, studying professional literature and regular team meetings. The study is team based learning and every team has its own trainer. Students can discuss their ideas, make experiments and practice various business related situations. The learning method is based on the learning by doing model where thoughts and ideas are shared within teams and they are transformed into plans of action in a concrete manner.

ProAkademia's literature is chosen according to every learner's own interest areas. There are about 1 000 books on the list. The books are scored according to the standard scale of 1-3. An essay is written about the books and it needs to mirror student's experiences, the operation of the team and the practical projects. The essay will be returned to the team's own trainer. Professional studies include the literature of different subjects, seminar

lectures and company visits, network studies, team meetings, teamwork, production of new information and projects. The literature in the professional studies concentrates on subjects such as marketing, project management, learning skills, innovation and entrepreneurship as well as teamwork and IT.

### 5.3. Approaches to Delivering Entrepreneurship Education at Vaasa University of Applied Sciences, VAMK

VAMK’s Business Clinic and Business Factory provide two different and innovative approaches for students and teachers who are interested in exploring innovative learning methods and deepen their knowledge about entrepreneurial thinking.

#### *Business Clinic Process model*

The Business Clinic offers students credit points if the realized product or service is approved by the company or organization and according to the teacher’s fulfillment. Depending on the size and extent of the service companies pay a certain amount for the provided services. Statistics from the year 2007 show that 150 students took part in realizing different project coordinated by the Business Clinic collecting totally 480 credit units.

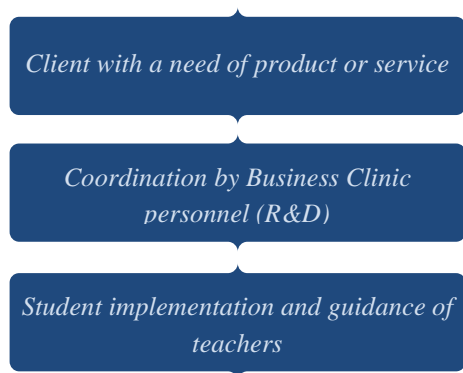


Figure 4. Business Clinic Process Model

The process model has received very positive feedback from students who have carried out the customized services according to companies’ needs. Since VAMK is a multilingual organization, services have been carried out in Finnish, Swedish, English and German. Examples of services are market and image surveys, marketing plans, competitor analysis, product development, translating services and so on. During the last few years there has been a productive collaboration also with surrounding communities to Vaasa wanting more expansive

surveys and assistance with seminar arrangements. There is however the same process model used no matter if the client represents the private or the public sector. Here it is illustrated in a somewhat simplified way.

Future plans for the Business Clinic is to develop the business even further by motivating more teachers and students to participate and taking on larger services. Business Clinic doesn't yet have an own module supporting the entrepreneurial curriculum (unlike Business Factory). However, VAMK has taken a stand and decided to develop the Business Clinic, together with Business Factory, as the two main incubative environments for students interested in deepen their knowledge in entrepreneurship. According to internal and external surveys, both students at VAMK and companies/ organizations agree upon the importance of an existing Business Clinic providing alternative learning methods and simultaneously qualitative products and services to the business in Vaasa also in the future.

### ***Business Factory Process model***

Business Factory offers students credit points as well as when participating in Business Clinic. Almost 50 students have completed the course Team Entrepreneurship in Business Factory since it started in 2005 and total completion of credit units is about 550. 24 students have completed their internship arranged by Business Factory and 11 companies have been founded. Business Factory has similar background as Business Clinic since both started their businesses in one degree programme and has now expanded their availability to all students at VAMK. Business Factory is based on a group of young entrepreneurs who carry out their own business at VAMK. The main objective is that student learns entrepreneurship through active and practical work in multidisciplinary and multicultural team in an incubative environment. Among the objectives is also included profitable business operation and employment by creating own team companies.

Studies mix the concepts learning by doing, problem based education and teamwork thinking where students develop both their theoretical skills as well as their social and practical knowledge. Study methods involving marketing conversations, consultancy, management and internship are frequently used. Since the majority of students are studying International Business are the services provided in Finnish, Swedish and English. Students who are interested in participating in Business Factory get a study plan which fits their studies and personal objectives which are discussed with a teacher, or so called coach, at VAMK. Examples of courses integrated in Business Factory incubative environment are Development of Entrepreneurial thinking, Brainstorming, Event marketing, Budgeting and profitability and so on.

## **6. Conclusions and next phases of new pedagogical models**

A survey by Growth Lab Consulting (2/21/2010) shows that in Finland, Enterprise 2.0 is currently at the early adoption stage, where competitive advantages will come to those who embrace the new tools and business models. But already 40% stated that spend will be made to prepare social media strategy. Our research as well as SaTaVa-project is taking first steps for developing common strategy for entrepreneurship education by using social media. Social Media makes new type approaching possible between a university and a student. The new media provide many different opportunities to communicate and to teach matters which are related to the entrepreneurship. It is possible for the students to learn and to develop its own business ideas irrespective of time and place. Second Life is one tool in this environment. Second Life is an interactive medium which gives the opportunity, the persons, Avatars to the discussions. Second Life as a challenge is the quick computer required for its usability. When the programme SL develops, in the future its problem also will arise to the loss. The possibilities offered by the social medium develop however so fast that it is difficult to predict what the operations models of the future are.

In the future, the SaTaVa region in the Second Life will be a venue for virtual information events for entrepreneur-to-be students. There will be short virtual seminars for instance, where entrepreneurs talk about their entrepreneurship and workshops on marketing, customer relations, and lines of action and methods of developing an enterprise, among others. But something else is going to happen in the field of new pedagogical models. Facebook is more and more linked to our learning environment. In the near future, it will be not only a marketing tool for us, but a real discussion channel, too. Discussion on entrepreneurship, and on challenges to start own enterprise, to meet first customers etc., shows that there is a need for social media. And social media offers us a tool to analyze future needs for developing our own entrepreneurship training. For example, Tampere University of Applied Sciences is now building for the SaTaVa project a new business environment KYKY, where students practice and learn how to establish, lead and do the operation control correct sells in the environment. The central objective is that the students adopt business both in theory and practice. The environment is built around the PUPESoft software. KYKY has own real business environment with a bank, an insurance company, trading partners and a warehouse etc. There is also an online magazine in connection with learning visual communication. The students design and build a virtual company in which they act as if they were working in a real company where money is only thing which do not move rightly. Everything else simulates real business.

## KYKY Erp-environment

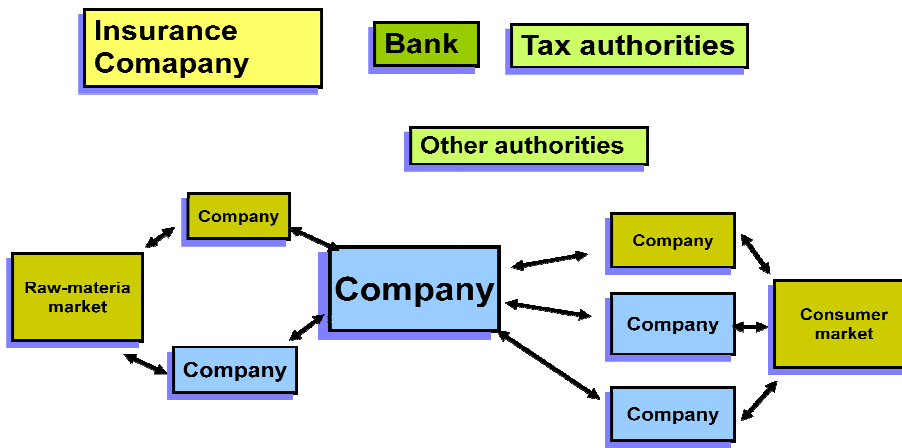


Figure 5. KYKY Erp-environment

This kind of learning environment is well suited for students from all of the education fields and it serves as teaching base for the basic studies of entrepreneurship and business. It is browser-based system, which makes remote login possible regardless of time and place. Thanks to open technologies, the system can be edited into a learning environment and properties can be added to it according to the teaching needs. The open environment makes development and enlarging of the learning environment possible. License fees are not connected to the systems of open source code. It has not been bound to one supplier or to any expert individual, but it can be developed or from the quarter an organization. Teacher may create events for the ability environment itself or may define automatic machine functions. Teacher gets information about the students' real action with the help of various reports: Events etc. made by the indicators of the firm, the user. Furthermore, the students' know-how can be tested. The subject of the examination is: open orders, situation of the bookkeeping, decreases late, balance of the bank account. KYKY environment will be ready completed in the spring of 2010 and the first pilot will begin in the autumn of 2010 when new students arrive.

## References

Growth Lab Consulting/Winnovation Network. (2010) Enterprise 2.0 and Social Media in Business (Survey 2010 – Finland). 2/21/2010.

Koivunen, M-R. & Nieminen, M. (1994) Systeemyölehti 3/94.

Kyrö P. Ripatti A. (2006) Yrittäjyyskasvatuksen uusia tuulia. ISBN 951-44-6551-2.

Lehtonen, M. Sosiaalisen median sosiaalisuus. Opettaja -lehti nro 49/2009.

Rae, D., Gee, S. & Moon, R. (2009) The Role of Entrepreneurial Learning Team. Industry and Higher Education Volume 23, Number 3, June 2009. IP Publishing Ltd, UK.

<http://slurl.com/secondlife/EduFinland%20II/64/53/26/?title=SaTaVa>

[http://fi.wikipedia.org/wiki/Second Life 8.1.2010](http://fi.wikipedia.org/wiki/Second_Life_8.1.2010)

<http://sometu.ning.com/>

[www.gartner.com](http://www.gartner.com)

[www.gartner.com/it/page.jsp?id=778814](http://www.gartner.com/it/page.jsp?id=778814)

[www.med.helsinki.fi/tuke/tukevasti verkossa/arkisto/0902/090202.htm](http://www.med.helsinki.fi/tuke/tukevasti_verkossa/arkisto/0902/090202.htm)

[www.opiskelijayrittaja.fi](http://www.opiskelijayrittaja.fi)

[www.palanapelissa.net/kayttajatutkimus/](http://www.palanapelissa.net/kayttajatutkimus/)

[www.webropol.com/P.aspx?id=385752&cid=74485503](http://www.webropol.com/P.aspx?id=385752&cid=74485503)