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TEACHING HAS CHANGED TO LEARNING - THE CIRCLES OF THE HILL-CONCEPT

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On-line learning, e-learning, distance learning are common terms, which can be used to describe what is it all about this thesis. In general learning with these methods are easily to explained with cost-effective benefits and flexible methods of self-study.

Satakunta University of Applied Sciences, later called SAMK, has had ideas to use e-learning methods all the way starting the end of last millennium. First steps were taken based on ISDN-technology using point-to-point connections and connections used by ISDN bridges as well.

At that time, there was a kind of vision for aim to target with, but there was not adequate technology and infrastructure. This thesis starts round year 2010 when things started to turn to something SAMK´s e-learning is nowadays and beyond.

After eight years of developing our concept can be noticed, that this developing and working together with huge number of teacher and staff members, we have created something new. Concept, which is called HILL-concept, has widely expanded all over Satakunta University of Applied Sciences and beyond. Many things have changed and can be said that to stepping in to our concept, new culture has been made with learning and other operation as well.

The research type will be used as Action Research. This research type is perfect for this kind of process where current state has been analyzed, made changes and checked for results.

HILL-concept is in a major role in Satakunta University of Applied Sciences but still there is lot to do with development with processes. The most benefit for thesis will go to SAMK. One target for this thesis will be aimed for better processes and surveys for our new starting students with their studies.

CONTENTS

ABBREVIATIONS

ISDN	Integrated Services Digital Network
ISDN-BRIDGES	Get together ISDN-sources and sets up connection
HILL	E-learning platform, which combines technology, pedagogy and culture
CD_ROM	Compact disk read-only memory
MOODLE	Learning environment
TOUCHSCREEN	Display- and input device operated with touch
OVERHEAD PROJECTOR	Device used to display images to audience
ANALOG SOUND CONSOLE	Device for combining sound
DIGITAL SOUND MIXER	Device for combining sound digitally

1 INTRODUCTION

The world is changing and teaching as well. In our university, learning must not stay untouched, it needs to move on. Need of knowledge is growing. We need to stay with change. With this thesis, I am researching how Satakunta University of Applied Sciences has taken this challenge to serve students in their different stages of life. This thesis is not about contents of different subjects or curriculum. It will be more like how e-learning has developed during years. These steps are described with tree cycles toward current state. This has had huge difference for pedagogical aspects as well as for different reference groups such as library and student offices. It has required a lot of brainwaves with technology side point of view. Numbers of education materials for use of technology and training for teachers and staff without noticing student's needs as well.

Setting target for what we wanted from new concept was very clear. For what purpose, for whom and how our new concept should work was set. Today, we are still with this target. That target never changed and we were able to fulfill that target. The only thing we did not have, was technology we wanted, and we were never able to find it as a turnkey basis.

I am focusing e-learning with following issues with this thesis. Rapid development of technology with communication as well as in display technology with touch properties, has produced possibilities for taking serious steps for e-learning. Currently e-learning serves most in the field of higher education. New way of learning and teaching has changed the way how teaching methods has changed in physical classrooms. On the other hand, e-learning has changed courses as well as e-learning systems are used mostly in distance learning education. Even whole examinations are held based on e-learning. It´s possible, that a student never visits at physical school building. (Alsadhan, Alkomod & Shafi 2014, 26-30)

With this thesis I am using Action Research method. With this method, research is used a bit looser way of approach than research in exploration thesis, even collecting the material is the same. This research is more like making a full account of the case. Action Research is based very often lightly for theory.
(Vilkka & Airaksinen 2003, 57.)

Thesis starts from the year 2010 all the way to current time. This does not mean that Satakunta University of Applied Sciences took its firsts step with e-learning at that time. No, first steps were taken all the way last century but that was pretty light cause lack of technology. During last eight year can be found three cycles. First cycle was pretty much with technology and learning with first steps with pedagogy. In early stage we called our doings as a techno-pedagogical concept. We also named our concept as a HILL-concept.

During second cycle e-learning concept spread to other campuses. Training was a part of successful introduction. Numbers of users started to grow rapidly. Technology also kept on developing.

Third cycle started when Satakunta University of Applied Sciences started to build up a brand-new campus in a center of city of Pori. We faced new kind of technological requirements. Still we wanted to keep HILL-concept's focus in a right direction. Pedagogical issues came first, and working and reliable technology was just in a back ground helping to reach our targets.

It´s obvious that we have done right things. There are numbers, we have metered, shows that we have hit success. We are not finished yet. There are new visions. We are ready to offer for the future for even modern way of new learning culture.

2 RESEARCH DESIGN

At Satakunta University of Applied Sciences learning was in a kind of baseline at year 2010. At that time, teaching was a lot made with traditional way teacher teaching students in a classroom. Students needs turned more for flexible direction. On the other hand, SAMK wanted to serve students with larger area. Basically, all over the world.

Action Research is a manner where first is to discover current state. With results, starts action planning for state of target(s) and then take action. After action has taken steps for new way of acting, starts information and it's analyze time. All the time action is monitored to stay valid and in every day operations.
(Kananen 2014b, 34-35)

With intervention, research means change in target organization. It´s targeted for opening new point of views for organizations course of action. Specially in SAMK´s case there was a great value to find out new ways of thinking and create new operation models.

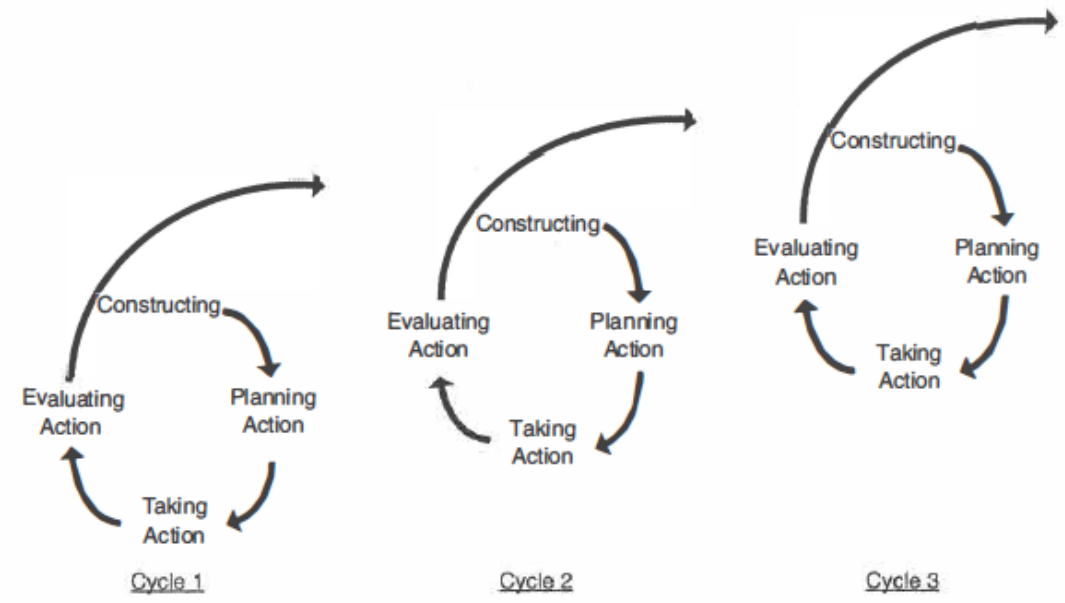


Figure 2. 1 Spiral of Action Research Cycles (Coghlan & Brannick 2014, 11)

At this thesis, there can be found three cycles so far. First cycle is changes and developments, where first steps were taken on way to e-learning methods. This change took place in a City of Huittinen, Campus SAMK Huittinen. Seconds cycle included e-learning methods and HILL-concept to expand to all other campuses. Third and so far last cycle took place year 2017 when SAMK decided to build up a brand-new campus with idea where the whole campus were learning space.

3 E-LEARNING

3.1 Background for e-learning

Even though there has been a term “e-learning” for many years, meaning for this is not pretty much clear. The meaning is basically clear but still what is the exact meaning?
(e-learning concepts, trends, applications 2014, 4)

At this moment, this is indeed a good question. During the years, meaning for e-learning has changed. Earlier years students were sitting in a physical classrooms and e-learning was more like learning with multimedia together with computers. The idea was still, that there was a teacher leading the learning process being a king sharing the right knowledge. What e-learning brought to learning process, was kind of CD_ROMs with information when created and slideshows and so.
(e-learning concepts, trends, applications 2014, 6)

In general, this was a starting point and it was quite easy to define what is e-learning. Things started to change when technology started to develop with internet and mobile devices. Starting around 2010, technology started to be in a certain baseline for modern e-learning. When technology started offering multiple choices for learning to develop with different terms like blended learning or flipped learning. The point is that there started to be many ways to offer learning. Universities were not the only, who found the benefits of e-learning. Big companies also started to offer courses for their employees and go-workers. There were possibilities to make a selection with technology to make possible e-learning that fits the best.

E-learning is about working with computers, mobile devices from student’s point of view. As a e-learning concept, there is a bigger complex than just e-mailing with others about certain matter. In many cases there are special e-learning classrooms with technology for teacher to choose the need for a course to lead students learning. On the other hand, there must be certain services like Moodle learning environment nowadays, where the course is held together as a base port. There must be technolo-

gy, that makes e-learning possible in a technical point of view. That is just a starting point and that is something teacher must handle as a background process. Technology is something to invest in. Technology must be there, it must be easy to handle for everyone working with e-learning and it must be something to rely on. If one of these three points is missing, we cannot proceed with learning.

E-learning compared to traditional learning offers huge number of information with access to on-line databases, journals and pretty much material which cannot be located with normal library.
(e-learning concepts, trends, applications 2014, 17)

All together there is a large change in teaching. In a way, all courses must be built from a fresh start. Changing teaching from traditional teaching to e-learning must change pretty much everything when leading learning with new way. Situation might be so that teacher never even meets student elsewhere than in a network. Because of that, there is a need for training also for pedagogical side. Most likely there is much more to do with pedagogy than with technology.

E-learning demands a lot of effort from University to start offering courses or whole training programs there where is lack of knowledge. With e-learning we can reach large benefits for collecting students. There are basically no limits. Compared to traditional teaching to teaching with e-learning, there is 40 % increase in learning with mastery methods. With e-learning studies are not so time-consuming because the same results compared to traditional studies took 40% less time.
(Mayer 2005, 100.)

3.2 Satakunta University of Applied Sciences - facts and figures

Satakunta University of Applied Sciences operates in Western Finland in four campuses in four cities. The cities are Pori, Rauma, Huittinen and Kankaanpää. Pori campus is a main campus. According to this thesis it's good to know that SAMK Campus at Huittinen is 100 % digital campus with around 600 students.

Other main figures in 2017:

- 5927 students
- open university students 1193
- international degree-students 225
- international exchange-students 135
- staff members 371
- degree programs in finish 25
- degree programs in English 11
- degrees awarded 988

(SAMK www-pages 2019)

3.3 Setting the target for e-learning

In the autumn of 2010, without knowing what technology has to give in a new future, e-learning took a major step forward at Satakunta University of Applied Sciences, later called SAMK. At SAMK Campus Huittinen environment was about to change. Something new had to be invented. Role in teaching was changing from traditional day teaching to studies with adults. First thing was clear. There were numbers of adults with need of sharpen up their knowledge and professional skills at job market. that knowledge lagging adults were everywhere in Finland but less than needed nearby. And they were most likely working daytime. This was a starting point to set target how to offer flexible and efficient possibility to study diploma at SAMK.

There was already made background research for future studies but there was a lack of technology. How technology should fulfill future studies demands? First of all, at the beginning there was a demand list how technology needs to serve us:

- there was no need for students to visit campus because of lessons
- at actual learning situation teacher´s role and doings wanted to be as traditional teaching situation in classroom. This was because there were students both physically present and virtually present
- students must be able to participate, not just follow teaching from their computer feeling as perfect presence feeling as possible without being physically present.
- students must see teacher and see also overall live picture what is happening in certain classroom
- students must see presentations in their own screen and be able to hear all others, not just teachers voice. This includes picking up voices from students, discussing in a physical classroom.
- technology needed to be so easy to use that every teacher could handle it.
- technology needed to be something to rely on.
- there should not be any extra cost for students to suffer for e-learning situations except personal devices and internet connection.

This was technical part of approach. Pedagogy was a different thing, but the target was to be built on technical layer.

3.4 Choosing technology

We had experience for earlier technology like ISDN-bridges for network communication and at that time more modern network-based communication with Virtual Collaboration for Lotus Sametime, which was a hint where e-learning was heading. We also had in use traditional video conference devices, but it was not something to expand to larger scale. These technologies were not solutions for us. We needed something new.

We made multiple inquiries for several biggest service providers and technology suppliers giving out our descriptions described above. We received all kinds of solutions, but those solutions were not acceptable because of lack of features or too massive to build for with budget exceeding price. So, there was no solution in sight maybe because there wasn't any.

Things started to change when I was visiting in Ireland, Dublin in an IBM Technology Campus. (IBM www-pages 2019). Together with right people and right connections we were able to take a step forward. With IBM's relationships to Cisco (Cisco www-pages 2019), we were ready to make an order for our first version of technical solution.

First version, called as a workname "luentojen levitysjärjestelmä" was based on video conferencing solution together with Cisco´s WebEx Collaboration solution. (Cisco WebEx-pages 2019). This version left us plenty to develop with but so it has been all the way from 2010 to current time. With this technical solution we were able to deliver voices and live picture from classroom to distance students and backwards. Also, other students outside physical classroom were able to discuss together. All costs were targeted to SAMK below students. We had a rather good start. It was so good start that we were able to take fresh start with our techno-pedagogue concept which we named as a HILL.

3.4.1 Challenges with early use of HILL

HILL-concept is not just technology. It can be divided to three main parts, which are technology, pedagogical processes and corporal culture. These are the outcome when using HILL after taken the launch. First of all, when technology comes first, we had to solve certain issues like descripted in previous chapter. After getting to know our technical platform, we were able to start first lessons with our new system. At beginning, there was quite a lot of students present at physical classroom and only few participating from home. This issue started to change with fast schedule. At that time, we also had limitation for intake for our HILL-sessions. We were able to take 24 first attendees but this was not a problem. This was because we did not have such large groups at that time. First real problem was that we had only one classroom equipped with technology HILL needed. Quite soon we were able to set up another classroom as well.

After six months practicing our HILL-concept we came to conclusion, which was the first case outside technology, that all courses had to be able to offer with HILL. Situation was impossible when students had to come to campus for one lesson and then rest of the day students had opportunity to participate from anywhere. At that point we were forced to expand our HILL classrooms up to seven. This was not possible because of budget. Therefore, we were forced to create light version of HILL classrooms and order for more accounts from Cisco. With these light versions, we were not able to pick up students voices from classrooms and we lost ability to show as good video from classroom as we could in our original classrooms.

After one year we launched our HILL, this was our situation. We had technology to work with, it had shortcomings but there were no failings. It was time to start developing pedagogy together with technology and start marketing our HILL to catch more students with a larger area.

4 THREE CYCLES TO CHANGE LEARNING FOR A NEW CULTURE

4.1 First cycle, developing HILL-concept

What is it all about? It is about a change. If we do the old same thinking => we will get the same results => again and again. Who should change? Not me but everyone else? We want a change, but we do not want to change our doings.

As a continue from previous chapter our technical personnel created every HILL-session and even take care for technical success with teaching events. But this was impossible situation. We started first time coaching personnel and teachers to take care of a new technology by themselves supported by our ICT persons. It took time and repeats but this was a method of working with everyday business. This was important development, cause lessons started to take place also at weekends and evenings. Not much but in case of e-learning, there is no place for technical failures.

At that time, we needed to find out how to resolve drawing to board and showing materials to classroom as well as to participants outside classroom. We started to find different solutions to match our existing environment. We ended up to solution, which carries on even today with more developed devices. We decided to move on with Smartboards. Touchscreens with a size of 86” (Smarttech www-pages 2019) and their software named “Smart notebook”. At that time, we got several hundreds of features, but we wanted to use only two features. The other feature was just capability to write and draw to board so that everybody in a classroom as well as participants from a distance could see that. That was a huge step with our technology even, that we needed to configure Cisco WebEx collaboration service because of double set of annotation tools. There was a second feature we wanted to get used to. We wanted to get capability to use old fashion overhead projector as well. But of course, with capability to show picture to distance users as well.

At that time, we were heading with our HILL-technology to three main areas. One was network based conference service and second area was area with touch screens and cameras. And then our third area with biggest challenges, voices. More exactly

how to pick up all voices from classrooms and deliver them to distance users with high quality. This problem rose with HILL-classrooms with light equipment.

Therefore, we decided to try simple analog sound console attached with needed number of microphones placed in a roof of classroom. We also wanted to make sure, that teachers voice was above others, we equipped teacher with personal wireless headset. We were not pleased with results. There were more buttons for teacher to handle but still quality for voices was not satisfactory.

According to our objectives for technology and developing pedagogy, what had we done:

- a pioneering and easily used technology
- learning and interaction regardless of time and place
- the number of learners is not limited on the basis of the facilities
- turnover and expenses don’t increase linearly
- environment for all staff members to have meetings, place and method working together

Realizing we were doing right things, understanding that adult teaching was sliding to e-learning. Becoming aware that we were interesting an University to fulfill need of knowledge because flexible way to approaching studies. We were also starting to receive inquiries and visitors wondering how and what we are doing and getting so good results.

4.2 Second cycle, expanding HILL-concept

After around three years, it was time for HILL-concept to expand to other campuses. First campus to expand was SAMK Campus Pori and then it was SAMK Campus Rauma's turn. For time being we build two HILL-classrooms for each campus. Building those classrooms was just building up something already familiar but we still had problems with catching voices. How to catch better way voices and make teachers role easier. That was one task to figure out. Second task was again lack of licenses for our network conference service. These were technical issues and were simply and easy tasks, but voices were a challenge. Third issue was, that we needed to create from zero covering education program to take over technological issues. Even technology was in a small role, it had to be able controlled so well that it was not a source of fear. On the other hand, education took part also for pedagogical issues. From the beginning Moodle learning environment was in a major role with our HILL-concept. And it was in a role also with our education program. We created 26,5 hours wide program with all -rounded task preparing teachers to meet students with HILL-concept. As an outcome for performing education, teachers were licensed to move on. Fourth issue was creating manuals for pretty much every possible situation in a changing environment. Later on, this task has become quite time-consuming task.

Getting more licenses to our environment was kind of simply task but we did in with wider options. While we got more licenses, we also wanted new features as well. The most important feature was ability to record lessons. Even with reduced space of recording space. The second wanted issue was possibility to share student on-line for small groups. This was investment for future needs.

Our voice catching problem was on long time. In this case, it was difficult to find cost effective solution. With unlimited sum of money, there would have been less problems. At that time, we were looking for a solution to be copied for more than ten HILL-classrooms. We were able to find solution from Austria. At that time AKG was company of its own. Current days, company named Harman Kardon (Harmankardon www-pages 2019) owns trade mark AKG. Finland import company named Studiotec Oy (Studiotech www-pages 2019) was our link to factory. We also

made co-operation with local company named Pihlajamaan Musiikki Oy. (Pihlajamaa www-pages 2019). As a result in our case, which is still valid today, was digital sound mixer added with existing sound consoles. Otherwise our technical set up was the same as it was at the end of first cycle. Because of this, teachers “button” number reduced significantly. And most important thing was that we were able to prior teachers voices and we were able to catch students voices from every corner of classroom. Could this solution be better? Yes, but this solution was cost-effective.

Four years ago, we started heading for third cycle. It was obvious, that the use of our HILL -concept was growing rapidly and would keep on growing, which was right observation at that time. Our third cycle was to be targeted for brand new head Campus at City of Pori. That campus would have been loaded with latest technology with all fields and HILL was included as well. We were about to build up several HILL classrooms with space shared middle wall. Because of this, we build up 100 % exact classroom to test and develop technology, so that we would be ready just to copy solution, when needed. The challenge was big for sound and video solutions. We needed to build up a solution supporting the space used with two different modes. First was all space together, using all technology loaded in that room. Then in second mode, middle wall was separating the space in two. Our technology had to be able to offer two teacher 100 % technical support for use of HILL. Our technology needed to be able to divide to two. We also wanted to focus on absence of grounds for disqualification as well as observe hearing difficulties in both ways. Resulting these issues were high adjusted touchscreens and induction loops.

These options and features needed to be so easy to use that teachers could manage by their own.

After finding solutions and after building up or very first future HILL-room, we started to use it in everyday activities like having lessons. We collected feedback to improve our solution and bringing for new solution to be build in campus to build for.

Meanwhile the need using HILL was growing rapidly. We needed to create our conference part with new way based on sustainable development. We wanted to get following features:

- personal accounts for our staff members with basically unlimited number of participants
- network based recording space with reasonable capacity
- possibility to offer students accounts as well even with reduced features

We were able to get these features and because of this we were confidential for future's growths after implementing these new features. Continuous training was going on all the time. There were more than 400 staff members at that time. Despite using HILL for teaching and learning, HILL started to take place in many other needs like all kind of meetings and events. Different international projects were also rapidly growing area for HILL to use with.

The world started to get smaller.

4.3 Third cycle, HILL-concept in a major role with new way of learning

The new campus will be one whole learning- and working space. (Sankari 2017)
That was a target and HILL had its own role with it. We built up five HILL classrooms with divided spaces, one space with one size and one auditorium. Outcome for this is that HILL teaching can be held all together twelve at the same time. Thanks to very good planning and preparation, building up HILL-classrooms was a project with very few problems. But it was a huge effort of work. Basically, from starting point of planning demo space all the way to readymade and also current state of HILL-classrooms environment, there were only few changes:

- teacher's laptop to be integrated to environment
- document camera as a modern overhead projector without need of computer
- better and easier to use overall cameras
- increased performance for carpeting for acoustics

Our staff was responsible for building and setting up for implementation, but some work was outsourced like cameras and touchscreens. We were helped with installation company named Avec Esitysratkaisut Oy from the other side of Finland.

As mentioned earlier, technology is part, even most important part of e-learning. At this state we could not point this issue more. Focus of HILL-concept was turning more and more to how to get most out of it but at this point we started to prepare unnumbered times for training our staff to learn how to work in our brand-new HILL-classrooms. Even more important skill was to know what all possibilities were there to make learning easier and as effective as it's possible. All technical solutions were the same in every space. If you could learn to use one environment you had it all, even in all other campuses.

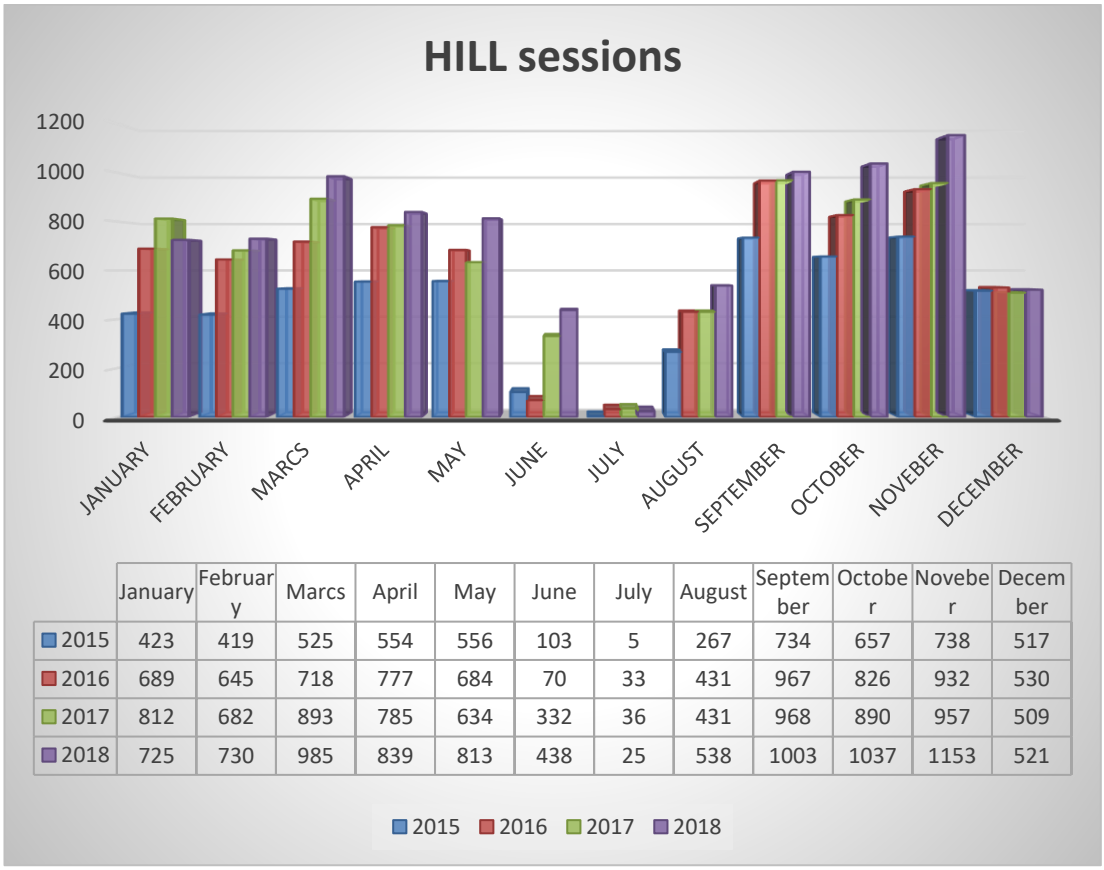
Our new campus was ready for a launch!

5 RESULTS AND ANALYSIS

In this chapter, I am going through results with certain key features to find out what kind of results launching HILL-concept has caused. HILL-concept is currently widely used with teachers, other staff and students in all campuses. To get best results out of using HILL-concept during several last years, I have chosen to focus to results of SAMK Campus Huittinen's results.

5.1 Number of HILL sessions

In previous chapters, I described the early steps launching HILL-concept. The usage was very low and started to grow rapidly during cycle 2. In following graph, we can see how teachers and other staff has used HILL. We can see steady growing all through last four years. What is also interesting, mostly quiet summer time is not so long any more. June's role is increasing and August as well. Only July seems to be quite silent time.



	January	February	Marcs	April	May	June	July	August	September	October	Novebe r	December
2015	423	419	525	554	556	103	5	267	734	657	738	517
2016	689	645	718	777	684	70	33	431	967	826	932	530
2017	812	682	893	785	634	332	36	431	968	890	957	509
2018	725	730	985	839	813	438	25	538	1003	1037	1153	521

Figure 5. 1 Number of HILL session, SAMK Campus Huittinen

5.2 Applicants

In following graph is shown numbers of applicants starting the year of 2010 ending to year 2019. Year 2019 includes only first application round. The estimated figures are 50 % of year applicants. I have divided applicants to primary applicants and total number of applicants. Here we can also see growth over the years. What is interesting is that applicants, who want study in SAMK Campus Huittinen, apply. There are not so many applicants like secondary applicants.

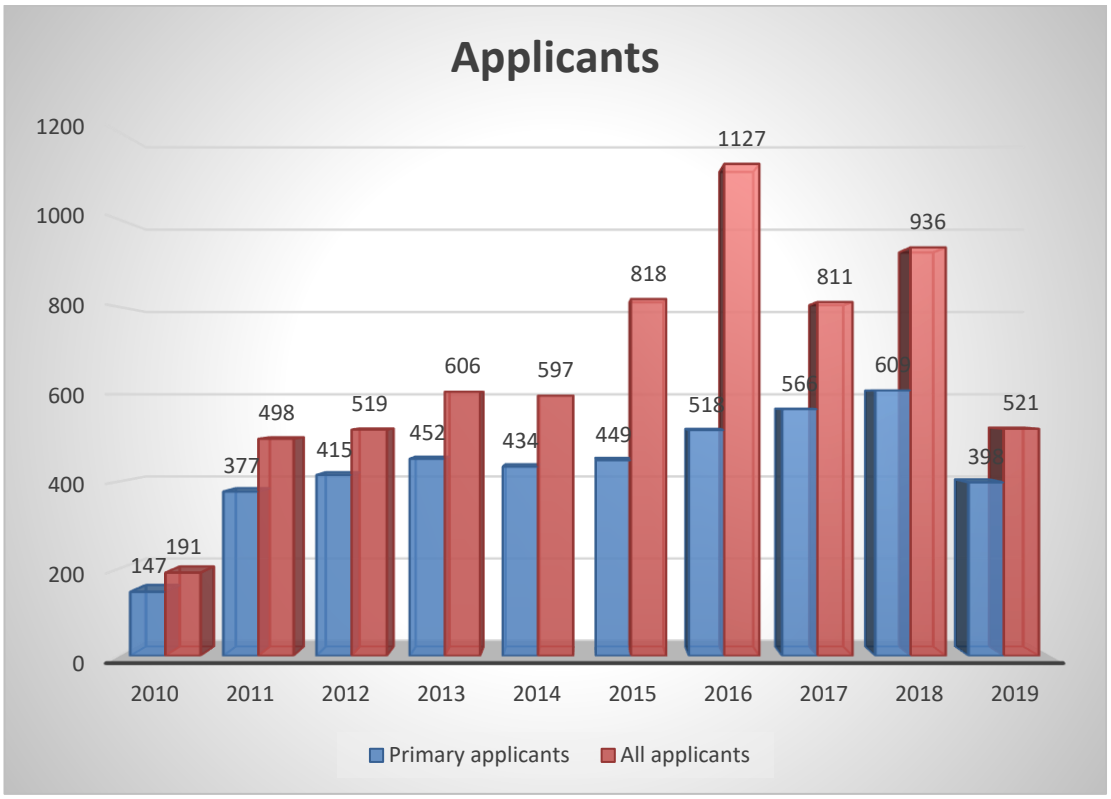


Figure 5. 2 Applicants in SAMK Campus Huittinen

5.3 Credit Units

Here I have collected numbers for credit units for diploma students as well as open university points collected by casual students. From figures we can see that credit units collected by diploma students, has risen almost 50 percent in seven years. On open university side we can see something outstanding. After a slow start, number of collected credit units has exploded up in to sky-high.

There are also two more figures, figures 5.5 and 5.6 where we can compare more detailed how HILL-concept affects in the whole Satakunta University of Applied Sciences. I mentioned before that HILL-concept is most widely used in SAMK Campus Huittinen. Total sum of open university credits are not crowing year by year. Five first year's total level is pretty much the same, then it grows and ends up with a fall.

There is a fall in figure 5.5 at year 2017. We can say, that it's a minor drop but there is an interesting reading at figure 5.6 at year 2017. First, we can see that without SAMK Campus Huittinen the total yearly growth hast not been so regular. During 2017 there has been a huge drop with open university credit unit. Again, at figure 5.4 we can see that with at SAMK Campus Huittinen, growth has been all the way also from year 2016. Figures are not so easy to write out because HILL-concept is also used in every Campus to collect open university credits, but this is something we cannot pass.

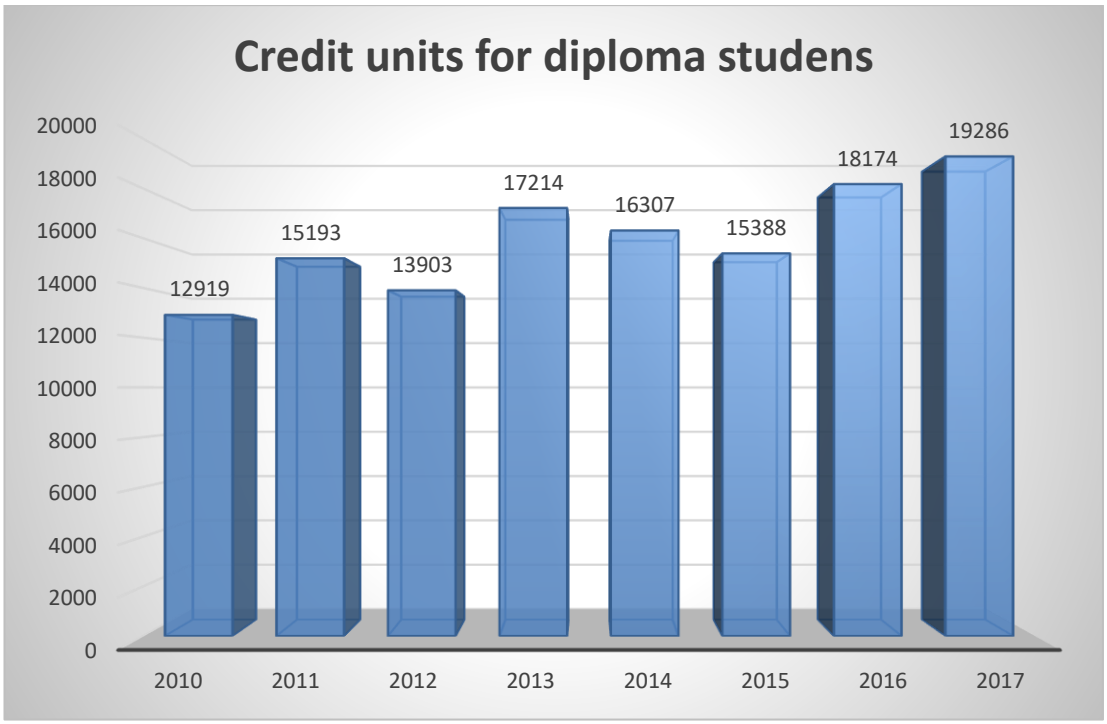


Figure 5. 3 Credit units for diploma students, SAMK Campus in Huittinen

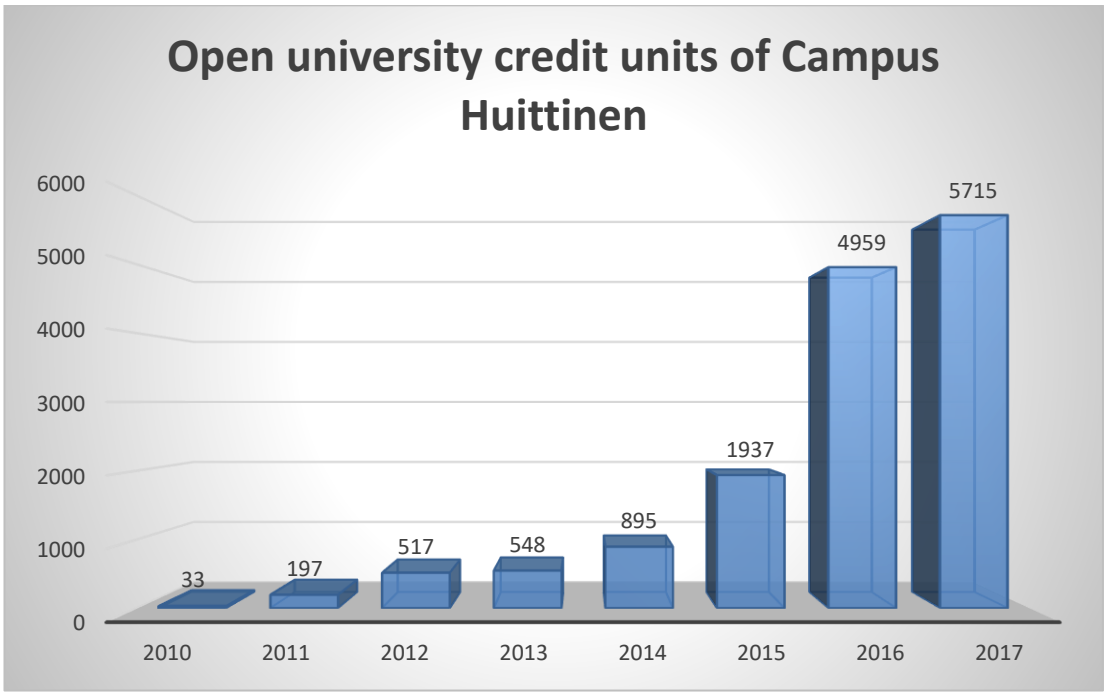


Figure 5. 4 Open university credit units, SAMK Campus in Huittinen

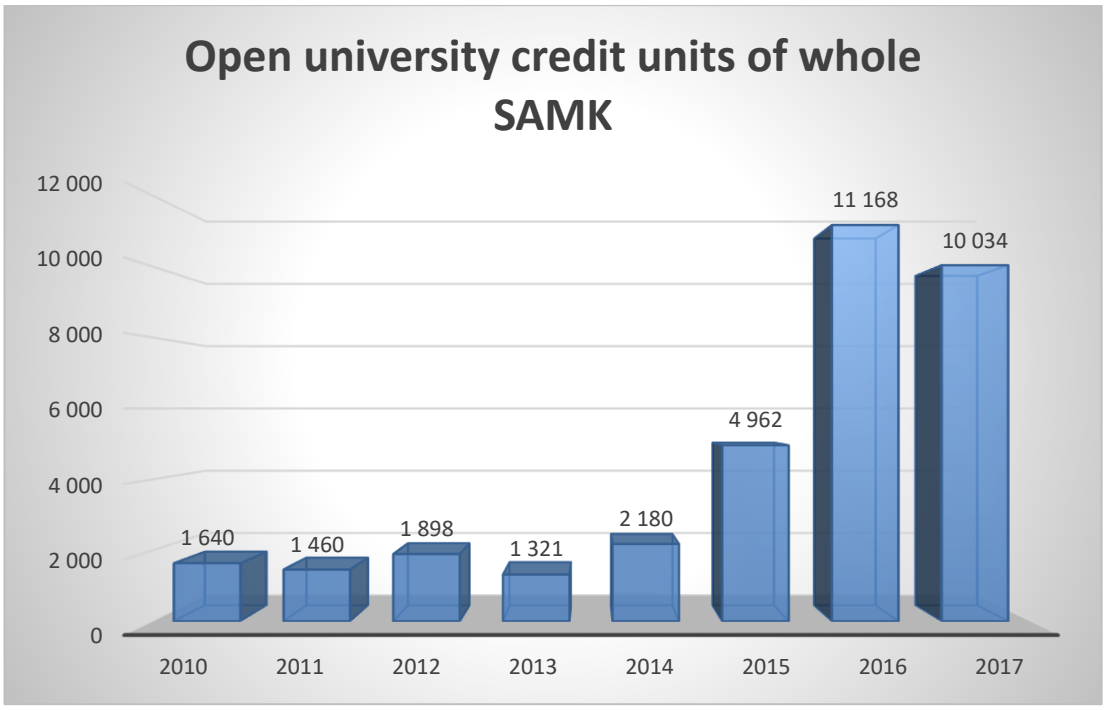


Figure 5.5 Open university credit units, SAMK

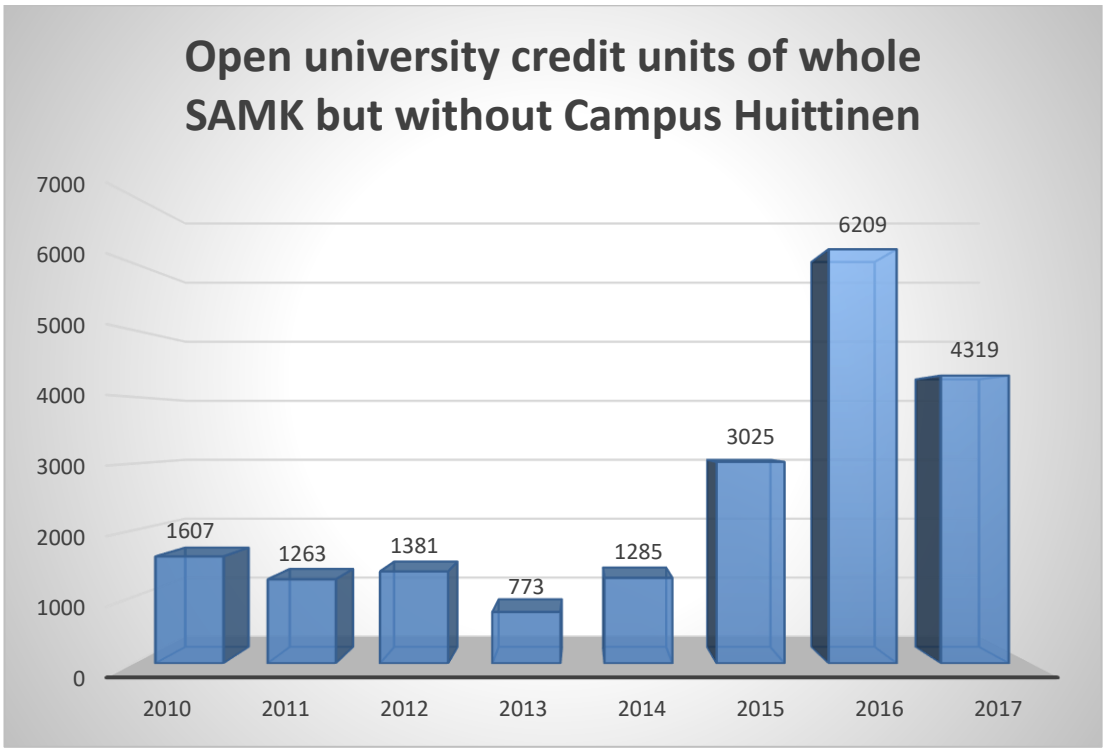


Figure 5.6 Open university credit units, SAMK, without Campus Huittinen

5.4 Drop out rate

I have collected drop out numbers also during years from 2010 to 2018. Every drop out is too much but there has been good trend for quite many years. What has happened during year 2018? There is a huge growth with drop outs.

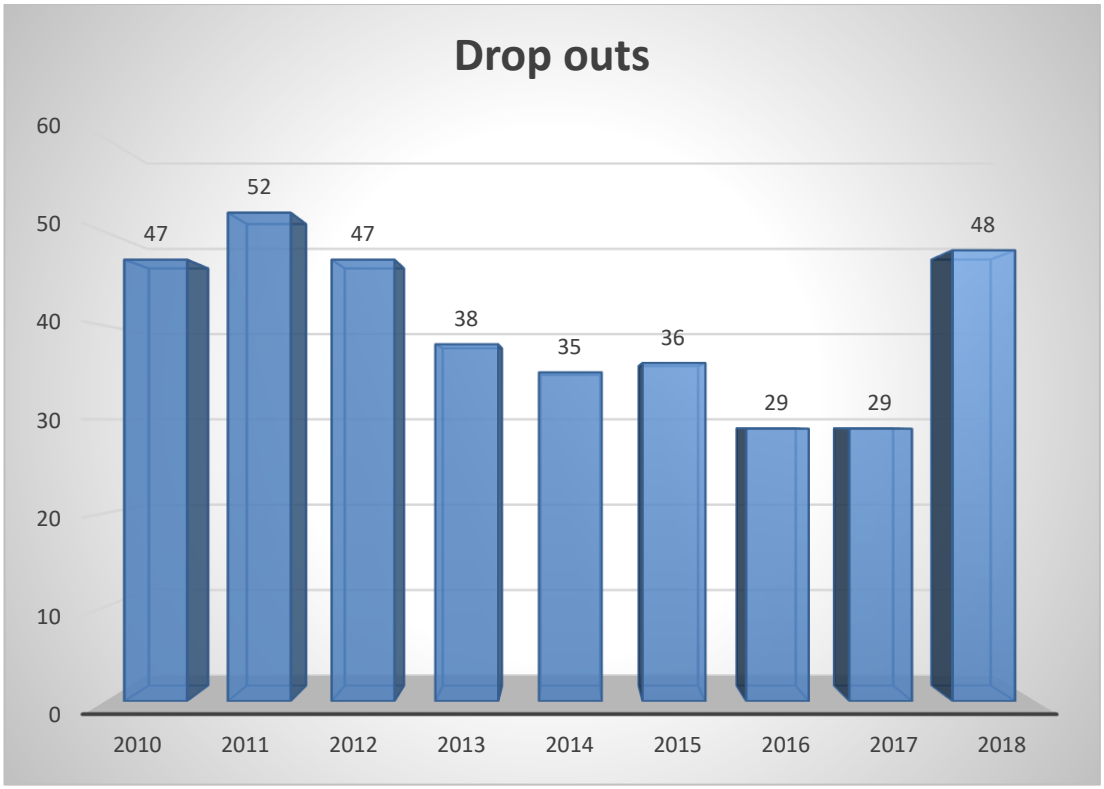


Figure 5. 7 Number of Drop Outs, SAMK Campus in Huittinen

5.5 Graduated

Even there has been such a number for drop outs during the year of 2018, we can see that just the same year 2018, there has been a new record for number of graduated. Might be possible that drop out number will be shown years to come as lower graduated numbers.

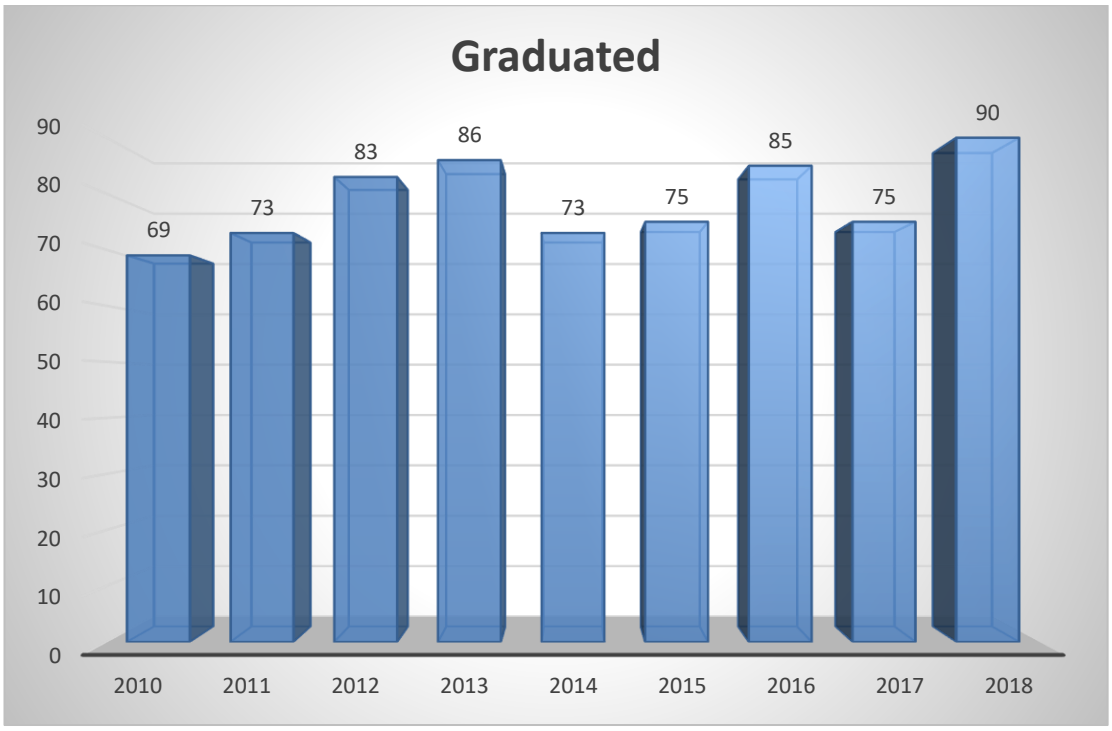


Figure 5. 8 Graduated in SAMK Campus Huittinen

5.6 Amount of physical space

E-learning is based on network. Thinking like this could mean, there is no need for space at all. This is not the case at SAMK Campus Huittinen. There are still classes, even less than years ago but there are still working spaces for teachers, staff, office and Library. But there has been a reduce in half in square meters starting the year of 2010.

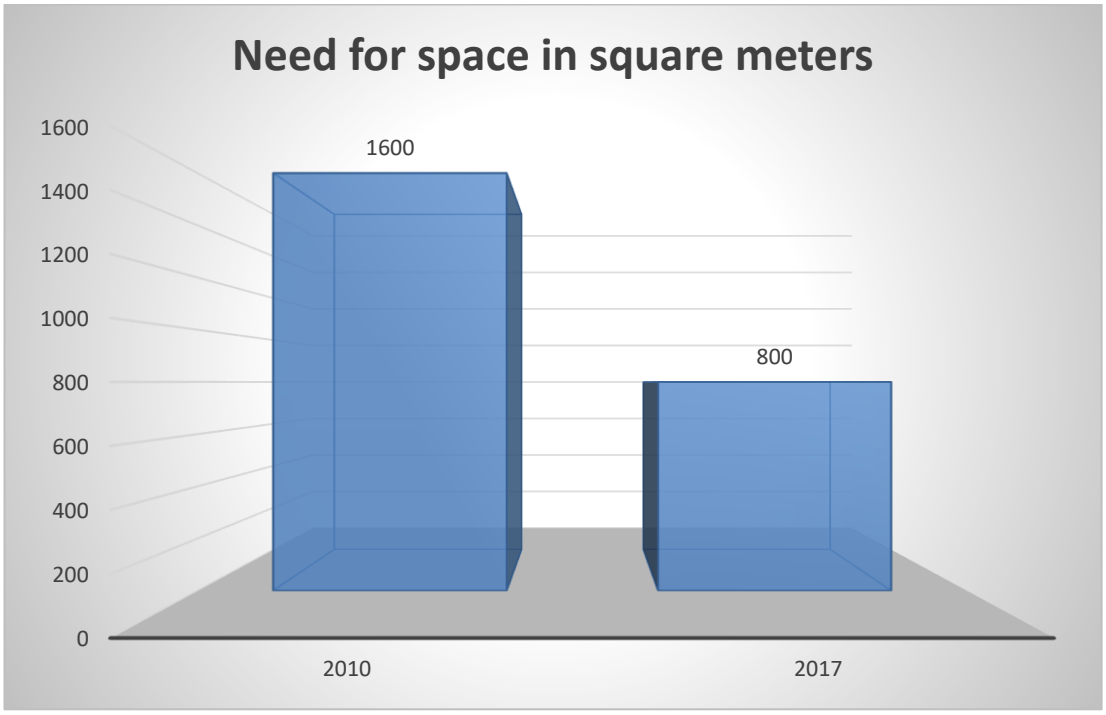


Figure 5. 9 Need for space in SAMK Campus Huittinen

5.7 Feedback

Following picture will show how students has taken new way of learning. Even there are different challenges for students to go on studies, seems like they also appreciate certain freedom to study. New concept also gives more hours for day because there is no need to travel so much. Seems like new concept is an answer for student needs.

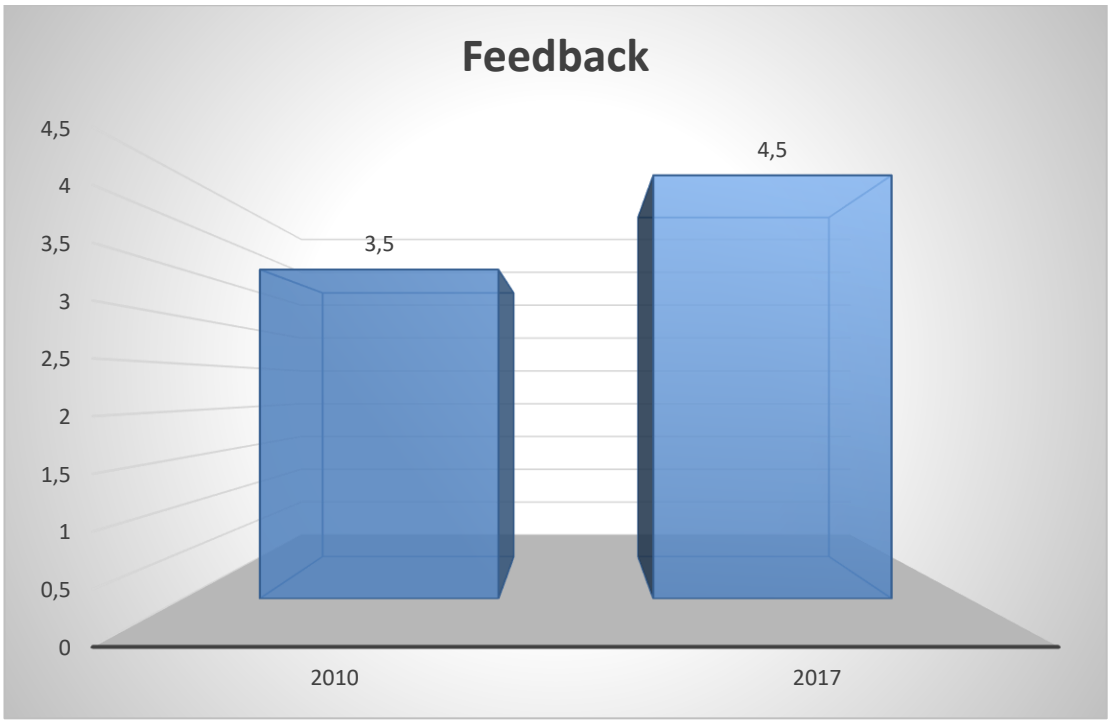


Figure 5. 10 Feedback, SAMK Campus in Huittinen

5.8 Validity and Reliability

Overall validity and reliability measures research quality and trustworthiness. First of all, we have a research frame with research problem. We start solving the research problem with chosen research method like action research, which is my chose with my thesis. Then comes implementation, where we have material or data which are processed with analyses. After processing the material, we will get solution(s) as a result(s). In every step we will keep on asking if we get the right material and is the result reliable and can we trust the outcome.
(Kananen 2014a, 146)

Reliability measures how permanent or lasting the result(s) are. Meaning, if we process the same material again and again, we must get the same results. Validity measures, that we have chosen right matters to investigate.
(Kananen 2014a, 147)

In my thesis, there are reliable results, because the processed material is based on facts, which are received from official databases of Satakunta University of Applied Sciences. For example, the number of applicants will not change no matter how many times we ask for new material. It’s the same results, if we ask for open university credits or number of drop outs, it will always be the same.

How we measure Satakunta University of Applied Sciences success? There can be different values, which can be moral values and/or more numeric values. In my thesis I have measured numbers that will show success like with growth of open university credits. Validity is in high level with these results because these are important figures when measuring success compared to another Universities.

There are a lot of changes with organization background operations. It’s very difficult to measure green values like carbon footprint. How much our culture has changed with meetings, how much less do we travel between campuses and how much we save time for other tasks. What is the meaning for reaching new students from a distance or what does our HILL-concept means to our projects and interna-

tional co-operation. I have mentioned later on with this thesis project “Svebinar”. It would have been impossible to organize without HILL-concept.

If returning to results, and take a closer look for Open University credits, which material is mostly processed. There we can see reliable figures and figures, which are validity. There can be found trends caused by implementing HILL-concept versus other activity at the same field. There are a lot to discuss what has happened behind these kinds of figures.

From HILL -Concept point of view, it started from a one single campus at SAMK Campus Huittinen. Since it has been successfully working concept and reliable, it has spread all other campuses and even beyond.

6 INTERVIEW OF TIMO MATTILA, VICE PRECIDENT AT SATAKUNTA UNIVERSITY OF APPLIED SCIENSES

What is HILL-Concept's meaning for SAMK Campus Huittinen?

Shortly, it has changed everything. There need to be facility, teachers, students, office, ICT, library, marketing department and of course management. All University basic elements must be there but those has had to organized new way. When considering year 2007 and 2012, you could not recognize the same campus. Everything has changed.

Technology was in a key role in a beginning and has a role in a concept. Has technology's role changed during the years? Is it more like a background process? Any other comments during last years?

All organizations, especially educational organizations know, that there is new technology on it's way all the time. Mostly main number of teachers and other staff does not even realize, when new technology is taking part. When new technology for instance preferring learning, only part of it's possibilities are taking to everyday use. All the possibilities will easily not be used while more actual daily tasks must be solved before learning new features from technology. In case of Campus Kuninkainen, there were during earlier years learning environment called "Virtualia". When developing this environment, new feature was taking action only one or maybe two out of twenty teachers to everyday operations. Others just ignored and as a result, there were no desired change. With HILL- concept, the case was that as a starting point, the use of new technology was guided all the way from the beginning. Teachers and other workers were testing different technologies and then WebEx was tested. It raised from beginning ideas how it could be used to help students to learn and fulfill our strategy. It was recognized, that there were plenty of demand: Vanhanen's government stated that there were 600 000 working people studying while working and the demand would grow. Why not with us? We had several multiform learning based degrees but still with very low attraction force. The main reasons were twofold: Satakunta is a region with thin population and students using al-

most all evenings from Monday to Thursday during for four years was not realistic. Technology was needed to be able to offer possibility to study.

But how we deal this with teachers and other staff. It is not enough if teachers became users of the technology. With new technologies and for real distance students, was it possible to leave other processes untouched?

We used baby steps while the role of ICT personnel was important. First, we did something and when teachers and other stuff or student wanted to have some more functionalities and then it was developed and served with new processes. First ICT personnel actually did the everyday tasks with courses and little by little teachers and other staff started to ask, if they could do tasks by themselves. As well as personnel, our students were trained to use technology as well. This was made so, that everyone was able to demonstrate technical issues, not just letting them to read manual and trying to manage. For example, with every starting group there were couple of times in evening time possibility to practice on their own but with a guidance how things are to be done. We were able to set technology to operation and trust for it for everyone. And it helped the teachers to concentrate not to technology but the most important area – helping students to learn.

How is it today? We can say, it's part of DNA in everyone working in a campus Huittinen. This is also part of DNA with students. Technology is not something to question. It's something like blackboard was during ages. All the steps needed to give a reason. When implementing nowadays some new features for the concept, you always need to give reason why. Why does this solution is good for learning? There must always be group of those who take it in action in a first place. This is important step when implementing. Implementing something new is also very difficult because it is impossible to show it's benefits because there is so little experience so far. Results can be estimated but estimating future's results like six months or three years ahead goes always wrong. We can get correct information not before than the usage has expanded enough. When all wanted to start using HILL-concept, our students were in major role. We could say "the World is our only limit". Still from the whole SAMK's point of view, we do have also other segment to serve than those studying on side of work. Though the number of distance-learners are increasing while Minis-

try of Education asks for that and in Satakunta we have so few kids. Maybe we are "rescued" by hundreds of foreign students.

What can we promise to our students with HILL-concept?

We can promise to our students that he or she can concentrate on studying and learning without facing too high doorsteps preventing dreams come true or even observing doorsteps at all.

Can you see any role with our doings with carbon footprint?

Yes, of course HILL-concepts has a positive role with carbon footprint. For example, at SAMK Campus Rauma, where we are studying and developing our education so that international students could be and live in Namibia but participating with our lessons. It's a huge benefit for nature for not to move from there where you are. And it is the same in domestic students as well. But it's not just environmental issue, it's also the use of time, nerve footprint.

From here to future. Is there something to improve or should we take a step back?

In Satakunta and in Finland population is not growing. If Satakunta University of Applied Sciences wants to success in future, we do not have any options, and if we want companies in Satakunta to success, we do not have any options. To be able to offer flexible ways to update knowledge, flexible ways to learn must be expanded at Satakunta University of Applied Sciences. This is requirement for being healthy and well-being University at Satakunta region. This is something, which has a lot to do with attitude and mode of action. Such a campus like SAMK campus Huittinen is no other at SAMK. Only baby steps are taken so far. This does not understate any ones doings but thinking again teacher's role, it's something we need to pay attention and keep on thinking. Naturally different customers (i.e. students) need different approaches.

We have good doing at Campus Huittinen. We can be proud but still there is no reason to stop developing the concept. We have forerunner doings at some areas like projects. We need to keep that position. World is going so fast in a moment, that in years others catch up our benefits. We know that in a field of University of Applied Sciences, others have taken influence for our doings, but we are the only ones who know how to concept this to our everyday doings. This is why we need to keep on developing with technology, organization culture, pedagogic to stay at top level and to integrate an DNA for our organization why we are here. We are here for our clients and for their success and learning.

What is HILL- concept's role with project co-operation?

How I experience or how I have heard, when discussion about working with projects with people coming from different organizations, we use email, we can go over and get together, travel hours for one hour meetings. This is time consuming and expensive. With my experience HILL has been the only platform worth using. When I have offered others to use our solution for meetings, they have said that we have this and that but every time, when experienced our HILL it´s been the chosen one for meetings with project no matter the location. If I rise one thing, it is user friendship interface. It's the same when seeking new contacts, like hiring new personnel, this is the tool. It´s no use to buy expensive difficult solutions which remains unused. And for reason, we are here to make our customers shine, not to learn difficult technologies.

7 CONCLUSIONS AND FUTURE CHALLENCES

HILL-concept has been utilized for eight years and latest technical version has been in use for one and a half year with large scale. Forwarding to cycle four, again we can divide HILL-concept into two. Technical side and side what to do with it.

From technical side of view, we can say, that technology is working, and it fulfill what in need to ask for. However, we have become aware that there must be some integration to make. First of all, users would benefit if we could decrease number of accounts and passwords from all users. In this case, this could mean integration to our Office365 based user database. We could also get benefits with integration to learning environment Moodle. Third and the biggest challenge is to develop something between teachers and students to communicate without delay and easily. The main target for this would be low threshold to ask or comment to certain issue without an extra login to some technological solution.

The other aspect of developing is from pedagogical side. HILL-concept has kind of caused, that there are now days such a number of those student, whose are studying with open university courses.

There is reason to keep on developing, improving and making the use easier for the user of the concept. This is based on results we have already reached and collected. As a summary of results can be divided for two areas: Statistical numbers and change of culture. Pedagogic has changed a lot but it has been in a major role when reaching following outcomes.

Increasing numbers for use of HILL-concept has brought to us a big growth for applicants. Most applicants are primary applicants. We can say that the number of applicants has increased by 500 %. More in more out works in our case. There is a better graduated percentage now than in a starting point. Thanks to technology there has been done some changes which has improved for selecting incoming students, which shows especially in last figures at table 5.8.

Since geographical distances are not in a role of great significance, we have been able to show HILL-concept's true strength especially in open university points. We can see, that in SAMK Campus Huittinen, where HILL-concept has taken strongest role of all campuses, open university points has increased basically from zero to nearly numbers like 6000, meanwhile all SAMK outcome is only round 10 000 points.

Our students are happy the way HILL -Concept let them to learn. During the years feedback has increased from 3,5 to 4,5. Still there are too many drop outs. E-learning is different way of learning and it may not be suit for everyone. This is something to pay attention for.

Concept has also been able to give up physical space cause most of the students do not arrive to campus to learn. They study there where they are. This is one way for cutting expenses.

New culture as measurable result is harder to figure out. There has been a drop for travelling between campuses by our teachers and staff members. There is a drop also for guiding our students while practicing all over the Finland and abroad as well. Especially new concept is in a major role when applying new international project and working with them. This has also given us new possibilities to study. As an example, international project "Svebinar", where students learn Swedish with international students. Outcome for this kind of HILL-concept usage is something which is not totally possible to measure with money.

There need to be some new way how to integrate and orientate new students to get known get trained to use our learning environment. This is not just technological side but also side of understanding how for example library can be used on-line to help proceeding with a course. This will be a challenge because this must be done on-line. In most cases students never visit in a physical campus. In many cases students are not even living in a Finland. More likely all over the world. Totally different case is, how we can full fill lack of knowledge with a student not speaking Finnish. What is absolutely the most important and rewarding tool for libraries when guiding students in different tasks like thesis, is to be able to record the session. Then a student can

watch again and again some details during the guidance. This speeds up the session and causes less reconnection to libraries according the same issue. It's about sharing experiences and point on way of learning.

I mentioned earlier that HILL-concept has been trained hundred of times for our teachers and staff during different part of every circles. And this is something that will happen in a future as well. But there is an issue, that surprised us all and plays big role and makes a lot of work. That is making and updating introduction material. There are round 30 different introduction material for use of physical rooms and for different programs currently. This is not enough, because there must be material for teachers who lead the sessions. It's different than introduction material for participants. There are also exact guidelines for certain issues answering: "How to…". There are materials for our open university students as well as for our quest teachers and specialists. This is not enough because all material must be also in English as well and in some cases in Swedish. We are living in a changing and developing world and things just do not stay the same for a long time. There is always something to update. This is a challenge.

With technology, it's always the same. When things are made as easy and simple to use for end users, work at the background in not the same. When working together with international companies in different time zones, common working hours might take place at quite extraordinary times. When updating or bringing new features to technical side of HILL, I have faced very interesting meetings. You never know when facing an issue when troubleshooting an issue, what kind of specialist is coming to help you forward. Mostly interesting case is then, when you hit such a problem where you can see specialist troubleshooting your issue when there is no readymade solution. In a world like this, technology just must work 24/7. You need to have your connection to right people to get through your issue.

HILL-concept as a reliable and working e-learning environment is based on three topics, technology, pedagogy and culture. When one of these is changed every topic must change. When something is changed, training heads-up. This training is also one cornerstone which has been something to wake up interest among other operators in a field as well in Finland than elsewhere in Europe and even beyond of that.

During circles, we have had dozens and dozens of visitors to get familiar to HILL-concept. We have been also in different places all over the word explaining what is it all about. There has been a lot of interest to our activities in a field of e-learning. The change is the issue which is the most demanding. To be able to enroll something, which changes the culture of other University, you must go ahead with wide front. We have been training for other Universities with experience we have collected during the cycles of developing and expanding our HILL-concept and yes, they are on the way to success.

Let us be aware and happy, there is a working HILL-concept to operate all over the world ready help learning.

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