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# BRIDGING THE GAP BETWEEN WORKING LIFE AND EDUCATION

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## Abstract

Working life is changing faster than ever, and the expectations of working life are not often being met by the present higher education system. Working life in the future is expected to emphasize skills such as; learning capability, problem solving, leadership, social influencing and emotional intelligence. Currently higher educational institutions are looking for ways to provide their students with the needed competences to meet the demands of modern, rapidly changing working life.

This paper examines the ways that the Learning by Developing (LbD) strategy-based Peer to Peer (P2P) project learning model generates working life skills and whether it can be used to bridge the gap the working life and education. LbD is the pedagogical strategy of Laurea University of Applied Sciences (LUAS) and P2P is the project learning model used in the bachelor studies of business administration. The P2P projects are based on collaborative work between three parties: Lecturers working as project instructors, a P2P student team and a working life partner. The P2P model enables students to complete their degree in curriculum compatible research and development projects for real working life partners.

The discussion in this article is based on a study that was carried out to learn more about three themes around the working life skills generated by the P2P project learning model: soft skills (transferable skills), hard skills (concrete skills) and additional benefits such as ready networks or work experience. The study was implemented with semi-structured focused interviews of nine P2P graduates working in different phases of their early careers. The interviews were analyzed, and the findings were then categorized into the three earlier mentioned themes. The purpose of the study was to examine whether the P2P project learning model generates the competences that are expected to have an increasing demand in the future working life. The results can be utilized in developing educational models and as material for further studies. The study offers insight to the effectiveness of the P2P project learning model for producing future working life skills.

Keywords: project learning, learning by developing, peer to peer learning, future working life skills.

## 1 INTRODUCTION

Higher education in Finland is based on a dual model where the education providers are Science Universities and Universities of Applied Sciences (UAS). Science Universities focus on scientific research and education while UAS are focusing on more practical and working life development education. [1] The practical development mission of the UAS is described in Universities of Applied Sciences Act as following: The UAS shall implement applied research, development, innovation activities (RDI) and artistic activities that is serving education. According to the mission, UAS shall promote regional development, trade and industry business and regenerate the commercial and industrial structure of the region. [2]

The changing work life, growing complexity of work descriptions, career changes and the diversity of work life require life-, and career-long development of skills in addition to a strong, pervasive basic education. Integrating education to work and workplaces is a commonly accepted goal for life-long learning. This way, the education develops both the individual and organization. In order to succeed at this goal, the higher education and educational providers need to be able to recognize the relevant educational demands of the organizations effectively, in order to offer the best solutions, as educational services shift more towards being development services. [3]

Laurea University of Applied Sciences (LUAS) has developed its own pedagogical strategy called "Learning by Developing" (LbD) and described briefly LbD is a model for working together with education and organisations. [4] In addition, Laurea has a specific business training programme (Bachelor of Business Management BBA) "Peer to Peer" (P2P) which started in 2008. In the P2P programme students are able to learn almost the whole degree in partnership with companies and

organizations instead of traditional courses, the business studies are implemented in P2P as projects developed by the students and companies together. [5]

The Finnish Ministry of Education after an assessment published a report on work life requirements of the future that are expected to grow in importance during the next two decades. Metaskills, such as; problem solving, ability to learn, personal development skills and the ability to evaluate different types of information, (which all help manage rapid change), were expected to continuously grow in importance. Abilities and skills related to digitalization were also expected to become more important, namely the ability to utilize different types of digital solutions and platforms. [1] Additionally, in a World Economic Forum study (2018), the capability for analytical thinking, innovation, active learning, learning strategies, creativity, data analysis, problem-solving, social influence and emotional intelligence were also listed as to be the skills which are expected by employers to increase in demand by 2022. On the other hand, a continued fall in demand was seen for manual and physical abilities and a decrease in demand for resource and financial management skills. The report also examined the challenges for continuous learning, and according to National Forum for Skills Anticipation, educational reform is required during the decade of 2020, in which the traditional qualification-based learning should only be just one of all the possible ways to educate. [6]

The purpose of the study was to examine whether the P2P project learning model generates the competences that are expected to have an increasing demand in the future working life, and whether it can be used to bridge the gap between work life and education. This study is based on nine interviews of P2P graduates which were implemented as semi-structured thematic interviews, which were recorded, categorized and then analysed. The interviews followed a certain framework that was built around three themes: hard skills, soft skills and additional benefits. The content of the interviews gave insight to the skills and knowledge generated by the P2P project learning model that the graduates had been able to transfer and utilize in working life.

## **2 THEORY FRAMEWORK**

Learning by Developing (LbD) is a unique pedagogical model used by Laurea University of Applied Sciences (LUAS). The model is based on authentic working life development in cooperation with companies, organizations and entrepreneurs. The working life-based development projects involve lecturers, students, working life experts and customers and serves as a learning environment. The goal of development-based learning is to produce new skills that emerge as new products, operating models, within a work culture. Learning by Developing has developed since 2002 by LUAS. The roots of the model are in exploratory learning and in Dewey's pragmatism and the model itself was audited internationally in 2008. The strengths of the LbD were assessed as; increasing students' self-esteem and self-confidence, ability to work within real business life development, getting in touch with businesses and organizations early in their studies, and improving their employability. [7]

The basic elements of LbD are; authenticity, partnership, creativity, experiencing and research orientation. Authenticity means genuine working life and work-related research and development projects are seen as a learning environment that allows a new way to work. Development projects open up new changes and opportunities as well as creating new situations which are needed. Partnership means that students, lecturers, working life experts and customers develop together genuine identified development needs of a company and creativity is an essential aspect to new developments. The starting point for LbD is the ability to operate in an ever-changing world with arising complex challenges. LbD creates new ways to work creatively and innovatively solving new challenges in working life and experience can be seen in the context of new processes leading to the development. Established practices do not often work in new working life situations and there is often a need for reflection of personal experiences and the development of new ways of working. This is Laurea's pedagogical and regional research and development task and its activities combine education, research and development of business life as well as regional development. [8]



Figure 1. The characteristics of the LbD model. [4]

LbD has revolutionized the student's role in education with students working in partnership with lecturers and working life experts. A student is an equal partner who participates in various research and development projects and is required to have knowledge, know-how and ability to apply what he or she has learnt. The student can work in a development project as a job, a younger colleague or an equal colleague. The role of the lecturer has also changed as he or she is a coach, a learner and the supervisor of the learning process, with working life expertise in their field. Educating is very much about sharing knowledge and experience and a working life expert brings a genuine development challenge and his or her experience helps the company's future needs. This co-development of different actors creates new and profitable skills. [8]

Project learning may vary in different universities and contexts however in the P2P context it could be defined as a learning method, which involves three operators who work closely together to complete a research or development project in which the students have an opportunity to gain knowledge and learn in an authentic environment. The three operators in this context are the students, the project instructors and the work life partner. The project team complete the work life partners' assigned project with the support and guidance of the project instructors. The figure 2 illustrates the typical phases of a P2P project. Student project team consists usually of a project manager, vice project manager, secretary, vice secretary and multiple active team members. The project manager has the overall responsibility for seeing the project through although ultimately the entire project team is accountable for delivering the project and reaching the set objectives. The process itself generates a multiple different set of skills that can be transferred into working life, such as; digital tools and systems usage, team skills and writing skills, (although the gained substance business knowledge and skills are project specific). [9]

In project learning process, knowledge is gained functionally and socially by utilizing creative problem solving and student's multidisciplinary expertise from former experience. Students plan and execute project work in teams and therefore knowledge and understanding are built together. Project-based learning is a goal-oriented and conscious growth process that the students implement through personal learning within a project team. Learning also allows failure and mistakes as they promote the learning process. [10]

This study examines soft and hard skills provided by the P2P model. Soft skills are considered non-specific skills, such as communication, creativity, teamwork, conflict management, self-presentation, negotiating and leadership, which are considered hard to quantify. Hard skills are considered work-specific skills, which require training as well as practice and are easily observed, measured and described. These types of skills include for example the ability to utilize specific information systems, software and knowledge of legal matters. [3] Skills, advantages and perks that did not necessarily fit either category or could be considered by-products of the model were considered as additional benefits.

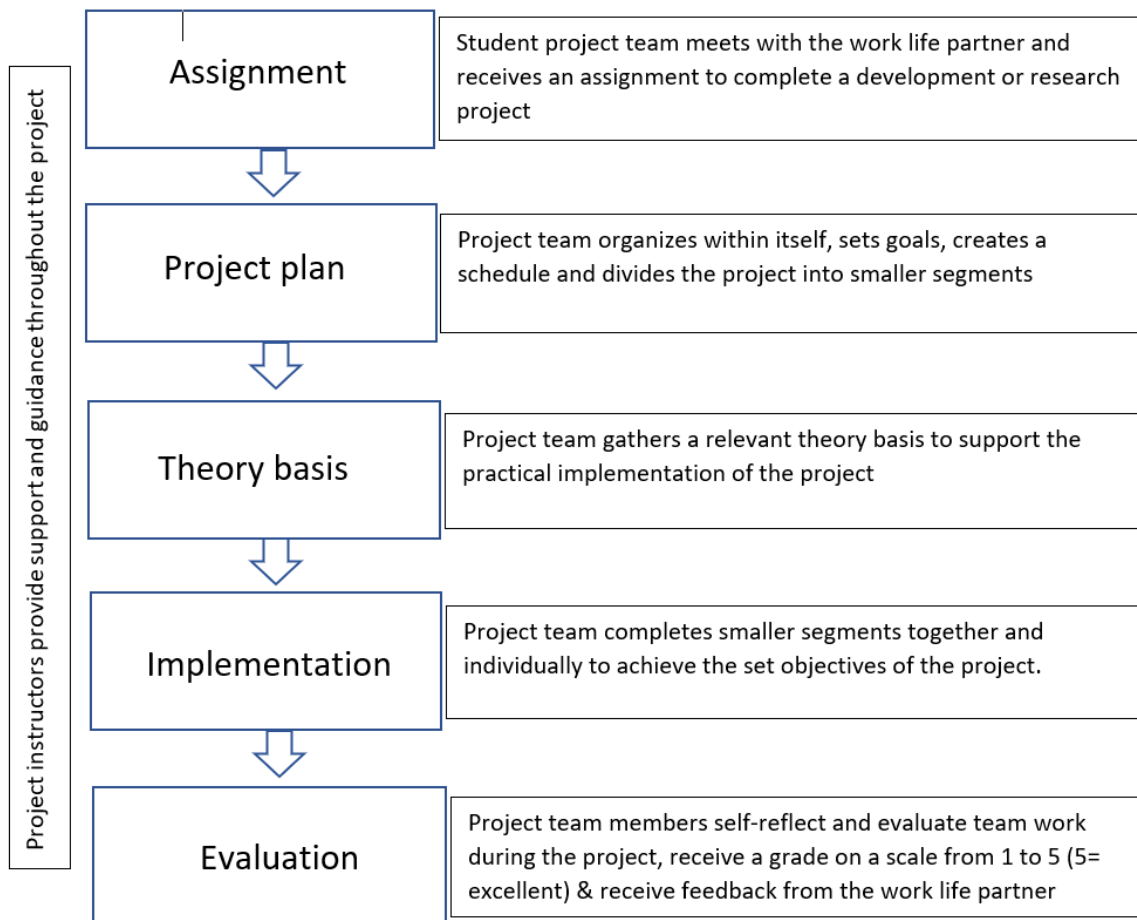


Figure 2. Structure of a P2P project to paraphrase Dickinson. [9]

### 3 METHODOLOGY

The study is a qualitative study and the methodology selected for execution was a semi-structured thematic interview. The study is based on nine thematic interviews, which were carried out by the research team during summer 2019 and the results of the interviews were analysed. The study examines how the skills generated in the P2P project learning model correlate with the expected future working life skills, and whether it can be used to bridge the gap between work life and education.

The interview was built and planned around selected themes and therefore the focus in these interviews was on specific themes rather than specific detailed questions. According to Hirsjärvi [11] it is easier to receive a subjective experience and filter the interviewees' individual voice from the interview with utilizing the thematic semi-structured interviews instead of a more structured interview form. The interview questions were carefully thought out to learn how the P2P-project studies generated hard and soft skills that can be transferred into the interviewees current work tasks, what kind of additional benefits did the P2P-model provide the graduates with, and what kind of elements did the graduates find lacking from the model that they would have found useful in their current jobs. The interviewees were chosen using the following two criteria: graduation within four years from the P2P-model and known to be currently in work. The research team gathered altogether nine interviewees through the senior lecturers' network from LinkedIn that fit the criteria for the study and were willing to be interviewed. The interviewees were then contacted first by the lecturers and then after agreeing to take part to the study they were contacted by the research team's interviewers to agree on a suitable interview time.

The interviews were carried out either by Skype or live in a beforehand agreed location. The interviewees were informed that the interviews would take up to 30 minutes, but in some cases the interviews took longer. All interviews were recorded for later content analysis. After the interviews were completed, the research team listened to the recordings and wrote down the interview content. The information from the interviews was then broken down and marked into an Excel file that categorized the findings into the following themes: hard skills, soft skills, additional benefits, time from graduation, position at work, feedback on the project learning model and rating for the P2P-model on a scale from 1-5.

Each of the three main themes (hard-, soft skills and additional benefits) were then categorized into sub-themes that can be found in the results section. For soft skills, the subthemes are: Co-operative and teamwork skills, the ability to take responsibility and carry it, self-direction, proactivity and prioritization, leadership skills, communication and self-presenting and self-reflection and personal development. For hard skills, the subthemes are: model-integrated hard skills and project specific hard skills. After a closer analysis, the research team was able to discuss the study content and make conclusions from the findings.

## 4 RESULTS

Results of the individual interviews were surprisingly similar despite the inherent variance of student projects and variance in their current positions in work life. In general, every student completes their degree with a slightly different set of skills, depending on the projects they chose to partake in. This is made possible by the flexibility of the curriculum for business studies, which enables the students to customize their degree to best suit their career aspirations.

Each theme of the interview was analyzed and further broken down to sub-themes, which enables a more functional overview of the skills provided by the model. The interviewees were asked to describe the skills, competences and abilities gained from P2P studies, which they have been able to utilize in their current work position.

### 4.1 Soft skills

Soft skills are considered non-specific skills, such as communication, creativity, teamwork, conflict management, self-presentation, negotiating and leadership, which are considered hard to quantify. [4] The theme was further broken down to six sub-themes for a more functional overview of the skills gained.

#### 4.1.1 Co-operative and teamwork skills

The P2P project learning model was expected to improve the teamwork and co-operative abilities of the students. According to the interviews, 8 out of 9 participants declared explicitly, that studying in the P2P projects had strongly improved their ability to co-operate, work in a team and work in an enterprise setting. In addition, 2 of the 8 participants also specifically mentioned, that the P2P model had improved their ability to get along with different types of people.

*“The best thing about the P2P-model is the teamwork and the interaction with real work life partners. Made it easier to connect and contact people afterwards.” – Interviewee*

#### 4.1.2 The ability to take responsibility and carry it

The P2P project learning model often places students against the unknown and additionally, many of the P2P projects are development oriented, where the work begins from a statement of a problem.

A somewhat surprising finding was that a majority of the interviewees specifically mentioned “courage” or “the ability to take (and carry) responsibility”. 6 out of 9 interviewees declared, that their ability to voluntarily take responsibilities had improved during their studies, which could imply confidence in one’s own abilities and growth of character.

A P2P project for a real work life partner might not even have a correct answer, unlike exam-based courses. The model often places students in challenging projects, which might have a positive effect on the growth of character and courage.

*“ I believe, that the study style (P2P) gives so much more attitude, experience and courage to just go and do things, and that’s what you need.” - Interviewee*

*“In projects, you had to carry your own weight.” - Interviewee*

#### 4.1.3 Self-direction, proactivity and prioritization

A majority, 7 out of 9 of the interviewees stated that P2P project learning model had improved their ability to direct themselves at work or to be self-guided and this included the ability to either prioritize, schedule and take on tasks unprompted. The model itself places great responsibility on individuals being in charge of their own learning. Additionally, all interviewees considered the P2P project learning model an excellent way to learn and would recommend it to friends and colleagues, however some would only recommend it to friends or colleagues if they were capable of self-directed learning.

*“You learn what responsibility is. If you aren’t self-guided, it can be challenging. It’s like work life in a small scale.” - Interviewee*

The P2P project learning model places students in live situations, where companies and organizations expect results from them. The interviewees generally placed pride in having succeeded at delivering excellent results. This could imply that to the students, the projects are not considered merely just a work life simulation, but instead actual work life. This could also explain how 3 of the 9 interviewees were reluctant to recommend the study model for just everyone in general.

*“P2P put me under a lot of pressure, and to some, the projects were mentally challenging. It (P2P) puts you out of the comfort zone and you really learn a lot in projects.” - Interviewee*

#### 4.1.4 Leadership skills

Two thirds of the 9 interviewees stated, that their ability to either direct, influence, inspire and lead others had improved due to their studies and interviewees placed emphasis on the learning from project manager duties.

P2P projects aim to emulate the hierarchical structure of working life as can be seen by the fact that every project team has a project manager, vice project manager, secretary, vice secretary and team members as specialists. When combined with the premise, that P2P projects could be considered actual work life projects by students instead of a simulation, an increase in students leadership skills could be expected.

*“At first, I was nervous about being a project manager, but after I realized I can lead a team I started liking it. Being a project manager has given me confidence and it really was an enlightening experience.” - Interviewee*

#### 4.1.5 Communication and self-presenting

7 out of 9 interviewees considered that studying in the P2P project learning model had improved their ability to either communicate (professionally), present themselves and interact with work life representatives. P2P project teams are placed in constant professional interaction with companies, organizations, project directors, the team and other stakeholders of the project. The interactions include but are not limited to negotiating project scope, deadlines, progress updates, facilitating workshops, holding training sessions etc. It’s reasonable to consider that this constant interaction could be a factor in developing these types of skills.

*“There’s pretty much no projects (P2P) like this in the traditional education. When you meet real clients (Work life partners) during your studies, you learn about working life practicalities.” -Interviewee*

#### 4.1.6 Self-reflection and personal development

4 out of 9 interviewees stated that studying in the P2P project learning model had developed their ability for either self-reflection or the ability to receive feedback and utilize it. Self-evaluation is an integral part of the P2P model. During P2P projects, the students are encouraged and required to evaluate their performance often, which could lead to students carrying these abilities to work life.

*“You learn to understand your own behaviour, reflect and develop yourself. Great results come from evaluating what you need to change in yourself to reach the goal.” – Interviewee*

The interviewees were often describing their learned soft skills even during questions which referred directly to learned hard skills. This could perhaps mean that the learned soft skills were valued more by the interviewees, or that they grew them more during their studies. It is likely that many of the participants were also working in a position, which did not allow them to utilize the learned hard skills as much. The model seems to provide the students a lot of opportunities for developing important soft skills such as teamwork, independent working, communicative and self-development skills.

## 4.2 Hard skills

Hard skills are considered work-specific skills, which require training as well as practice and are easily observed, measured and described. These types of skills include for example the ability to utilize specific information systems, software and knowledge of legal matters. [4] The theme was further broken down to sub-themes, which enables a more functional overview of the major theme. The hard skills generated by the P2P project learning model that were brought forward in the interviews were IT-skills, language skills, research skills, event organizing skills, secretary tasks, questionnaire implementation, project management skills and marketing skills. These hard skills are grouped into two sub-themes: model-integrated hard skills (acquired by studying in a P2P project learning model generally) and project-specific hard skills (acquired specifically depending on the project).

### 4.2.1 Model-integrated hard skills

Students are required to work as project managers in at least two projects during their studies and as secretaries in at least one project. One of the interviewees stated that different secretarial skills were concrete things that could be utilized in working life. Secretarial skills mentioned in the interview included organizing meetings and writing memos among other things.

*"In one of my projects during my studies I worked as a secretary and I gained plenty of knowledge on how handle the secretarial tasks and learned how to write proper memos. I have received a lot of positive feedback on my excellent memos at my current work place." - Interviewee*

The model itself pushes the students to learn a certain set of hard skills along the process, such as the usage of professional digital tools. Other hard skills that are integrated into the model are for example language skills and research skills. The P2P project learning model includes compulsory studies such as a Professional English -course and two compulsory international projects, which will be completed entirely in English. Language skills were mentioned in the interviews to be among the learnt hard skills that could be transferred to working life. Research skills are developed in each project while creating the theory basis to support the practical implementation of the project. Through these kinds of "built-in blocks" in the model, the students gain certain hard skills that are available for every student regardless of the project selection. The variety of gained hard skills comes through the different projects. Each project generates a different set of hard skills and therefore none of the students graduate with identical set of hard skills.

*"The international projects in P2P is a pretty good thing. It's a really good thing you get in contact with people from other countries and because of it, I'm now working abroad." - Interviewee*

4 out of 9 of the interviewees stated that they learnt project management skills that they have been able to transfer to their work. An assumption could be made that the interviewees referred to certain project management tools rather than general management learnt in P2P that they had been able to utilize in their work.

8 out of 9 participants stated that studying in the P2P projects had improved their co-operation- and teamwork skills. Common teamwork software such as Microsoft Teams or Slack are tools that are used in P2P projects, which could be expected to supplement the "soft" teamwork skills and represent the "hard" side of teamwork skills.

### 4.2.2 Project specific hard skills

The P2P model also generates project-specific hard skills for students. Some of the hard skills that came forward in the interviews were event organization, research skills and marketing skills. 3 out of 9 the interviewees had organized some kind of event in their project and had been able to use the skills in working life. Social media marketing was mentioned as one of the concrete skills learned in the P2P



projects. Many of the interviewees' projects had also involved the formulation of questionnaires, the analysis of the questionnaire content and the drawing of conclusions.

### 4.3 Additional benefits of p2p

Additional benefits as a theme includes non-specific benefits that could be considered a side-product of studying in the P2P project learning model. For example, these include, but are not limited to, students having ready networks or growth of character and personal abilities. The theme is further broken down to 3 sub-themes, which enables a more functional overview of the theme.

#### 4.3.1 Understanding work life and work culture

The P2P project learning model offers the students continuous interaction with companies and organizations. The advantages of that are shown by the fact that 5 out of 9 interviewees stated, that P2P had improved their understanding of work life practicalities, such as how to behave, work and converse in a workplace setting.

*"Client (Work life partners) meetings and work life practicalities are things you can't just learn from a book." - Interviewee*

*"During the studies, you might not understand or be able to value what you get from P2P, but afterwards when I've talked about it with many people, I've realized how much it has benefited me. It has given me advantage in work life over those that have studied in traditional lecture-based models." - Interviewee*

#### 4.3.2 Courage and self-confidence

During the interviews, 7 out of 9 participants mentioned that during the P2P studies, they had developed either courage, self-confidence and/or the ability to deal with difficult situations. This could be due to students gaining proof of actually having adequate work life adequate skill sets as they receive feedback from work life partners and from the project directors.

*"It's easier to go from bench studies to a university, but you might not get the important P2P elements: independency and growing up. P2P gives you a good foundation to work life and it leaves you with more in hand." - Interviewee*

*"I believe, that this study model provides you with so much more attitude, experience and courage to just start doing things and that is needed in working life" -Interviewee*

#### 4.3.3 Networking skills and graduating with ready networks

2 out of 9 of the interviewees specifically mentioned having gained ready networks during the studies and developed their networking skills. Constant interaction with work life partners is integral in the model, however, the low amount of specific comments about networking could be due to the fact, that no questions directly related to networking and gained networks was performed during the interviews.

*"They (P2P projects) have effected by job seeking skills and networking a lot. I've also gained ready networks and relations from projects." - Interviewee*

*"You are pretty much alone in lecture-based studies. When you leave Laurea (P2P), you already have networks and experience on how to network." - Interviewee*

## 5 CONCLUSIONS

The study shows that the P2P project learning model is consistently providing students with a large set of soft skills as well as variety through students executing different projects for different work life partners within a single business area. Additionally, the questions used within the interviews were considered broad and open ended by the study group, which was expected to prompt a broader range of responses from the interviewees. This could imply, that the level of education within the P2P project learning model is consistent over time. The responses of the interviewees were surprisingly similar, as the participants described having gained the same or similar sets of soft skills from the P2P studies. Interviewees generally emphasized the benefits of learning in real work life projects, which seems to provide the students challenge and motivation to learn. Additionally, solving real life business problems for real companies and organizations seems to be giving the students an opportunity for personal growth and developing independency and the P2P project learning model seems to be

providing the students a learning environment which they might consider actual work life instead of a simulation of it.

One consideration from the interview results, at best, P2P graduates could be thought of as professional communicators and presenters with co-operative- and teamwork skills. They can voluntarily take responsibilities and carry them as well. They can prioritize, schedule and self-direct themselves through tasks, all while having leadership capabilities. It could be said that they are continuous learners that are able to self-reflect and develop themselves. During their studies, they've gained understanding of the work life, ready networks to utilize and the abilities to network further. They have obtained a good understanding of project work as well as the experience of managing one, while utilizing commonly used co-operative IT-platforms and software to manage a project and work in a team. Each P2P graduate also has his own unique set of hard skills depending on the projects they chose to partake in.

The working life is changing faster than ever, and the P2P project learning model seems to be able to act as a tool for bridging the gap between work life and education. Executing real company projects seems to provide the students a lot of opportunities for self-development, personal growth, professional networking and to gain many of the soft skills which are in growing demand, all while providing substance business knowledge and numerous other additional benefits. The general feeling among the interviewees was that the P2P project learning model is an excellent way to learn and additionally, the projects are based on the markets' current needs, which means that it is highly unlikely for any project to teach entirely redundant or outdated skills to the students.

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