



## The Future of Education can be Messy

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### Abstract

*In the current economic climate, innovative teaching and learning methodologies have a plethora of undercurrents as approaches to reducing cost by developing more efficient delivery systems [1], by utilizing online virtual solutions to increase access to free education such as edX [2], or by focusing on the national approaches of vocational teachers education [3] and /or Centers of Excellence [4]. We wanted to go beyond the traditional secondary research of Masters Education [5]. Our approach to higher education builds on these themes, but pushes our delivery processes as a project network [6]. We approached Masters Level education as collaborative, strategically focused but pragmatically messy space, which creates commercially viable new business opportunities in the emerging markets, for the environmental sector. We built a platform that recruited students from the emerging markets, brought them to Finland, allowed them to manage a large group of between 50 and 70 undergraduates, including exchange students, for an entire fall semester. This project creates a substantial package of coordinated secondary data / material that is analyzed with respect to business opportunities in three or four environmental markets, in three countries. This material is shared between and is available for the entire class at both undergraduate and graduate levels for their thesis projects.*

*As an interesting twist, the graduate students also had to compete with their undergraduate "employees" in order to show value added roles as master's students. Additionally, they were also required to bring the entire project in on budget. After the presentations of the strategic market opportunities, the students were required to evaluate each other's performance, both as a team and as individuals from both the graduate and the undergraduate students.*

*In the spring term, the group was then divided into clusters based on their selection their master thesis topic, and these clusters provided sparing members while developing their field research plans. The students presented their proposal and based on achievability, they were each provided 1000 euros of support for going to the target market to conduct an intensive field research and clarify their initial analysis of the market opportunities. Each student completed a PESTEL [7], Porters Five Forces [8], created a stakeholder analysis [9] and provided a specific strategic approach for developing a specific market opportunity.*

*Prior to graduation, the students have now contacted several of the potential companies and players with respect to the market opportunity. This approach to building a project network allowed a student to gain the market credibility when approaching potential employers. These were no longer students with limited industry experience. These were professional colleagues that understood the market issues and opportunities to contribute a strategic value added role for an organization.*

*In 18 months, we consistently graduated over ninety percent of the students on time, with real industry knowledge, and real business development capabilities. Our quality assessment program was able to track changes in the individual's self-perception of their individual capabilities and industry specific capacities over the four phases of the program, thereby documenting the industry capabilities targets set by the Finnish Ministry of Education [10].*

### 1. The Challenge

In the current economic climate, innovative teaching and learning methodologies have a plethora of undercurrents as approaches to reducing cost by developing more efficient delivery systems [1]. For example, the US Department of Education is interested in the effectiveness of online learning as an approach to increasing productivity. According to their findings, the individuals with higher levels of personal skills and motivation remain more likely to succeed in the online environment. It is equally clear, that individuals that would be challenged to complete in a traditional education model, are even more likely to fail to be engaged online.



In a related approach to making higher education more financially more accessible, several of the prestigious schools have banded together to provide free course material under the brand of edX [2]. This approach creates a collaborative platform to higher education by providing free course materials, and in some cases utilizing crowd sourcing as a feedback mechanism. The edX type of educational delivery process will undoubtedly shape pricing for other online institutions. In Finland, we continue to provide all education leading to a degree for free.

One trend that is shaping the delivery process of higher education in Finland focuses on changing the skillset of the teachers by focusing on the changing role vocational teachers education [3]. We are in the process of a national consolidation of university programs, and in fact, the universities themselves, to make the units and course delivery more cost effective. At the same time, our goal is create a more internationally competitive, highly focused specialized types of education programs that increase Research, Development and Innovation (RDI) in the classroom. It should be pointed out that there is an inherent conflict in this strategy, because the school profile must support regional development, but also be internationally recognized.

At the forefront of these new RDI challenges is the relatively new role of the masters' degree programs provided by the Universities of Applied Sciences. The Universities of Applied Sciences are attempting to build Centers of Excellence [4], which have international standards of publications and staffing, but they continue to staff at the undergraduate level and continue to predominately hire local nationals for management positions. International RDI may be at the forefront of the Ministry of Education's strategies, but for the most part, the international RDI results of the Universities of Applied Sciences remain myths [5] represented in the PowerPoint statistics.

At the Lahti University of Applied Sciences (LAMK), we wanted to go beyond these mythical results International RDI. One of our masters degree programs pushes the boundaries of these challenges, by utilizing a unique approach to gain measurable results. This approach is described as a Project Network [6].

## 2. The Case

We approached Masters Level education as collaborative, strategically focused but pragmatically messy space, which creates commercially viable new business opportunities in the emerging markets, for the environmental sector. Our challenge was how to strategically build a program that would bridge the gap between the emerging markets and the environmental technology sector by doing actual international RDI. Our need to determine if there were viable markets for these new technologies was being driven by the regional hub for the clean tech cluster being located in Lahti, Finland. These SME companies needed to find international market opportunities to grow, but in actuality they had limited in-house capabilities to enter the emerging markets, both financially and from a personnel perspective. As we began this endeavor, we made one assumption. It is way simpler to train a local national from the emerging market to work in a European context than to train a European Foreign National to do business development in the emerging market. We should remember that we were interested in creating an independent market evaluation, so we need the ability to gain access to information and people in the target market, in the local language, according to the local customs. As we were evaluating the potential of local market opportunities for a variety of different technologies, which were not company specific, and therefore our findings were not intended to be proprietary. These researches were being completed to determine if there was a market opportunity and on what basis would the new market be strategically approached.

With that goal in mind, we built a masters degree program on paper that focused on building the necessary capabilities of a business development person in the targeted emerging market. The intention was that the capabilities of the student would build over the phases of the program and we should be able to measure the changes in the student's skillset by tracking self-assessment.

Only then did we recruited students from the emerging markets to join the business development team, and invited them to Finland. There were some local Finnish nationals recruited, but the predominate mix was intentionally recruited from the target markets. We then added several European exchange students into the group influence the group dynamics. The intention was to not have too many students from any one location, or language group. From experience, we knew that too many people from any one subgroup tend to increase the likelihood that the main group will fragment and the sub group will remain isolated.



## 2.1 The First Phase

During the first phase of the Project Network, this group of Masters students was expected to actually manage a large group of between 50 and 70 undergraduates, including exchange students, for an entire fall semester. This process was extremely messy, but incredibly useful in that group dynamics evolve and the management team had the potential for lots of management of conflict in practice. By using a 360-degree feedback process we could start to identify strengths and weaknesses of the team and the individuals. Successful managers were usually able to manage the group conflicts and create solutions. They were not only able to identify where there were conflicts, or state the reasons for the conflict, but actually needed to solve the conflict. Their managerial effectiveness was then represented in the feedback process. Pedagogically, the purpose of this first phase is to bring the RDI process into the classroom, but it clearly established a platform for real reflective learning in context. During the first phase of the Project Network, the students create a substantial package of coordinated secondary data / material that is analyzed with respect to business opportunities in three or four environmental markets, in three countries. This material is shared between and is available for the entire class at both undergraduate and graduate levels for their thesis projects. As an interesting twist, the graduate students also had to compete with their undergraduate “employees” in order to show value added roles as master’s students. Additionally, they were also required to bring the entire project in on budget. After the presentations of the strategic market opportunities, the students were required to evaluate each other’s performance, both as a team and as individuals from both the graduate and the undergraduate students. This first phase of the Project Network really brings home the dynamics of project management, complex deliverables, and multicultural teams with competing agendas.

## 2.2 The Second Phase

The second phase of the Project Network, during the spring term, the group was then divided into clusters based on their selection their master thesis topic, and these clusters provided sparing members while developing their field research plans. During this phase the students learn about their own research area, but can also learn that the choices they make for their market area may be also applied in another context. The clustering also pushed the students to stay on schedule, as they need to consistently develop their secondary research leading up to the research plan for the empirical primary research in the target market. At the end of the spring term, the students presented their research proposal and based on achievability, they were each provided 1000 euros of support for going to the target market to conduct an intensive field research and clarify their initial analysis of the market opportunities.

## 2.3 The Third Phase

The third phase of the Project Network is the field research. The students actually traveled to the target market to interview the critical stakeholders of their market opportunities. This is where the local national has huge advantages in utilizing informal social networks to gain access to people. The network of people they student would reach out to would expand as the depth of their understanding of the market opportunity evolved in their project. The network of the student is intentionally expanded over the phases of the Project Network, but because of their direct participation in the market space the context also begins to appreciate the student as part of the network. Relationships are bidirectional, and this type of approach to education creates access for the student by gaining credibility in the industry with the key stakeholders.

## 2.4 The Fourth Phase

The fourth phase of the Project Network is focusing on integrating the field research in to their thesis. In order to create some level of comparability between the theses and to create some critical steps in the student’s thinking each research was expected to cover specific market tools. Each student completed a PESTEL [7], Porters Five Forces [8], created a stakeholder analysis [9] and provided a specific strategic approach for developing a specific market opportunity. This type of approach allowed us to have a common framework in the fourth phase of the Project Network and also allows for the creation of publications. The students have created their own language describing the new business opportunities by learning how the critical stakeholders in the market understand the situation. They have had to learn how to sound when they present their research, in practice, not only in the classroom.



## 2.5 The Fifth Phase

The final phase of the Project Network is utilizing the network of contacts and stakeholders to commercialize the value of the changes in the capabilities of the student. The payback on the investment can happen in the market, or simply in how the newly formed network of people appreciates the value of the students and a contributor in the industry. These students have been very active in the market and hopefully they are able to be part of the emergent business opportunities.

Prior to graduation, the students have now contacted several of the potential companies and players with respect to the market opportunity. This approach to building a project network allowed a student to gain the market credibility when approaching potential employers. These were no longer students with limited industry experience. These were professional colleagues that understood the market issues and opportunities to contribute a strategic value added role for an organization.

## 3. The Results

In 18 months, we consistently graduated over ninety percent of the students on time, with real industry knowledge, and real business development capabilities. Our quality assessment program was able to track changes in the individual's self-perception of their individual capabilities and industry specific capacities over the four phases of the program, thereby documenting the industry capabilities targets set by the Finnish Ministry of Education [10]. The Project Network approach to Masters education works, both in practice and in theory.

## 4. The Future

In Finland, International RDI in the classroom has moved to the forefront of the strategy documents as the future of education. The need to create programs that can deliver high quality applied research in both in practice and in theory, as measured in publications, and by changes in the capabilities of the students remain the aims of our programs. The discussions about the viability of online delivery continue, as do the discussions to provide free education, however our main challenge is getting the actual integration of truly international RDI into the classroom, out of the classroom and into the capabilities of our graduates. The challenges of the future of education remain in our strategic discussions, however the main challenge remains, do our actions, and results, consistently and systematically measure up, or do they remain myths?

## References

- [1] Bakia, Marianne, Shear, Linda, Toyama, Yukie and Lasseter, Austin, (2012) Understanding the Implications of Online Learning for Educational Productivity, US Department of Education, Office of Educational Technology.
- [2] WWW.edx.org
- [3] Moon, Bob, Vlasceanu, Lazar, and Barrows, Leland Conley, (2003) Studies on Higher Education, Institutional Approaches to Teacher Education within Higher Education in Europe: Current Models and New Developments, Unesco 2003, ISBN 92-9069-173-X.
- [4] Hiltunen, Kirsi, (2009) Centers of Excellence in Finnish University Education, 2010 – 2012, Publications of the Finnish Higher Education Evaluation Council, 3:2009, ISBN 978-952-206-102-7
- [5] Maassen, Peter, Kallioinen, Outi, et. al. (2012) From the Bottom Up, Evaluation of RDI Activities of Finnish Universities of Applied Sciences, Publications of the Finnish Higher Educations Evaluations Council, 7:2012.
- [6] Fifield, Brett (2008) A Project Network: an Approach to Creating Emergent Business, The Helsinki School of Economics, Doctoral Thesis, ISBN 978-952-488-206-4.
- [7] Kotler, P. (1998) Marketing Management – Analysis, Planning, Implementation, and Control, 9th Edition, Englewood Cliffs: Prentice-Hall.
- [8] Porter, M. (1980) Competitive Strategy, New York: The Free Press.
- [9] Mitchell, Ronald K., Agle, Bradley R., and Wood, Donna J., (1997) A Theory of Stakeholder on Saliency: Defining the Who and What Really Counts, The Academy of Management Review, Volume 22, No. 4, Oct., 1997, pp. 853 – 886.
- [10] Tornainen, Ilona, Mahlamäki-Kultanen, Seija, Nokelainen, Petri and Iisley, Paul (2011) Innovations for Competence Management Conference Proceedings, Series C Articles, part 83.