

BRIDGING ORGANIZATIONAL LEARNING IN TWO CONTEXTS

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ABSTRACT

The purpose of this paper is three-fold. Firstly, to review research regarding especially collaborative educational projects between industry and academia. Secondly, to present a unique collaborative project in a graduate course module on technology strategy between Lund Institute of Technology and Biogaia: a biotech company situated in Lund, Sweden. Thirdly, to present and discuss the key findings for working and collaborating with a company in university education. Of special interest is the design of the unique pedagogical format and the collaborative educational project involving company managers, students and teachers. The paper also discuss implications for university teachers that intend to or already are using collaborative educational projects in their teaching.

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INTRODUCTION

There is a growing interest in universities and firms of developing different collaborative projects between industry and academy. Both these stakeholders find it increasingly important to bridge the divide between industries and academy. We know relatively much about how to create, maintain and evaluate collaborative research projects (e.g., Bengtsson, 2006) between industry and academy but relatively little is known regarding educational collaboration between industry and academy. There is a small but growing knowledge base on how to establish and conduct educational projects, such as case writing projects, in university education (e.g., Bengtsson and Asplund, 2002, 2003; Asplund & Bengtsson, 2004).

The educational program for engineers at Lund Institute of Technology (LTH) at Lund University has for a long time included the use of case studies especially in courses related to the technology management area. Existing cases in text books and distributed by case clearing houses are often set in foreign context, i.e., mostly American and British, and to some extent that poses some problems for the predominantly Swedish students. However, the greatest problem with case studies in the technology management area is the pace of technological change causing many cases to become outdated and obsolete. With this in mind we decided to introduce case writing in a course on Technology Strategy at the Lund Institute of Technology for last-year engineering students. The objective was both to generate more Swedish based and contemporary technology strategy cases and to influence the students learning strategies towards using a broader set of skills and to understand technology strategy in a broader firm and societal context. The cases are written in co-operation with Swedish companies that provide the topics and information needed in order for the students to construct the cases. The best outcome both in terms of good quality cases and in terms of learning outcomes for the students and the companies we achieved in projects where the company managers were the most interested and most supportive to the case construction projects (Bengtsson & Asplund, 2003).

As mentioned above previous research seems to lack concerning the experiences and outcomes for participating companies and university organizations in collaborative educational projects. In a broader sense this issue concerns the division of business and management education into two encapsulated learning arenas: the university and the company (Leitch & Harrison, 1999). Leitch & Harrison advocates a more interactive strategy and integration of these two learning areas especially when it comes to management and entrepreneurship education. Even though Leitch & Harrison do not explicitly discuss undergraduate education we think there is a need for new teaching methods, e.g., case construction projects, trying to integrate and stimulate interactivity between these two learning arenas. Building on earlier experiences (Bengtsson & Asplund, 2002; 2003; Asplund & Bengtsson, 2004) and others we have developed our student case construction method in order to further integrate and stimulate interactivity between the university and company learning area.

The purpose of this paper is three-fold. Firstly, to review research regarding collaborative educational projects between industry and academia with focus on collaborative student case construction projects. Secondly, to present a unique collaborative project in a graduate course module on technology strategy between Lund Institute of Technology and Biogaia: a biotech company situated in Lund, Sweden. Thirdly, to present and discuss key findings for working and collaborating with a company in university education.

The paper is divided into four sections. First, we make an overview on existing research on educational collaboration in university teaching. Second, we present a collaborative educational project in a graduate course module on technology strategy between Lund Institute of Technology and Biogaia: a biotech company situated in Lund, Sweden. Third, we present the main experiences and outcomes of the project as voiced by Biogaia managers, students and ourselves. Finally we discuss some implications for university teachers that intend to or already are using collaborative educational projects in their teaching.

REVIEW OF EXISTING RESEARCH

Case writing in teaching and/or as way of assessing students' performance in academic education has received very limited attention in research. Only a few articles seem to have been published in the area. For example, in WACRA proceedings only four papers regarding case writing in teaching and/or assessment have been published during the last eight years (1995-2003). Case writing is reported to be used in some teacher education programs where cases are constructed as a way to reflect on and learn from their own teaching situations and teaching dilemmas (Barksdale-Ladd, 2001; Hunter & Hatton, 1998) or their own organization in management education (Coté, 1999). Case writing has also been used in areas where there is lack of indigenous case studies, e.g., developing countries (Hornaday, 1995), small businesses (Whitt et al, 1991) and business development and entrepreneurship (Nelson, 1996). For our purposes, using case writing in undergraduate teaching, the studies by Lamont (1995; 1998), Whitt et al (1991), Sureshwaran & Hanks (1998) and our own previous studies (Bengtsson & Asplund, 2002; 2003; Asplund & Bengtsson, 2004) give some valuable insights.

Whitt et al (1991) advocate the use of student-generated cases in small business education programs because of the lack of relevant case studies in the small business area. Furthermore, they assert that case writing by students have several advantages for students, faculty, the studied organizations and the school. For the students they list the following advantages:

- direct exposure to the dynamics of the organization,
- training in defining business problems,
- training in selecting and analysing data,
- working with experienced business leaders,
- selection of problem and issues appropriate to the students' knowledge and experience,
- working in teams,
- training in writing and presenting case material.

Whitt et al (1991) also maintain that case writing in teaching, properly executed, is a win-win situation for all parties involved. For faculty and school they discuss advantages like better links between local business/organizations and school, increasing faculty contact with business leaders, and possibilities for empirical research in local organizations. For the organizations studied possible benefits include analysis of their own strengths and weaknesses by a third party, a source of help for specialised problems, a free look at possible future employees, and public recognition.

Lamont (1995) describes a process for case development by undergraduate students in marketing management. The process consists of six steps: 1) identifying and selecting a case study topic, 2) organizing the case study research, 3) researching the case study, 4) preparing and testing the case study, 5) preparing the instructor's teaching note and 6) publication. Lamont reports that the students learn several research skills like sources of information,

questionnaire design, and interviewing techniques. Moreover, writing skills, presentation skills and critical thinking are also trained. Lamont encourages the students to also construct a teaching note, however maintains that this is primarily a job for the teacher. Lamont (1998) reports on an evaluation of seven different teaching methods in marketing. One teaching method was team course project, a partially written case study that had to be complemented with additional information, e.g., marketing research data, by the students. The team course project scored high on educational outcomes like learning the practice of marketing, teamwork, interpersonal skills and decision making/problem solving.

Sureshwaran and Hanks (1998) develops a framework for applying case writing assignments in graduate agribusiness courses. For them, case writing by students means that the students are forced to confront the real situation and apply theories they previously have learned. They introduce an elaborate nine-step procedure for integrating case writing into a course from recruiting business mentors to on-campus workshops. The case writing assignment was also integrated in the assessment as it accounted for 20% of the final grade. The grading of the cases was based on evaluations made by business mentors, faculty consultants and course instructor. Criteria in the evaluation were initial case outline, final case study and accompanying teaching note, use of analytical skills, preparation at workshops, formal presentation, use of technology and agribusiness skills.

Bengtsson & Asplund (2002) proposed that the students themselves can construct a teaching case in order to understand a company's technology strategy. In this case construction process we stressed the importance of the construction of a instructors manual in order to support new knowledge of both content issues and at the same time creating a good learning vehicle to support this.

Bengtsson & Asplund (2003) reported on different measures in order to further involve and create a higher value(s) for the participating companies. The study concluded that the participating companies could be categorized into three groups depending on their level of involvement in the case construction projects; 1) obligation level, 2) relationship level, and 3) intervention level. In the first group a combination of lack of motivation from the companies and their contact persons and the student groups sometimes in conjunction with problematic case construction processes resulted in less good co-operation and less good cases. These companies mostly participate because they fell obligated to do so. A second group of companies seemed to involve themselves a bit more in the case writing projects. While they saw limited value in the actual case projects they did value the *relationships* with students, the faculty and developing a good public image. They also could get a free look at possible employees. Some of these companies recognised however that more value could be created if the process was managed differently, e.g., given longer notice of participation, better internal organization and so on. The third group of companies was enthusiastic about the case writing projects and involved themselves heavily in the student groups' work. These companies recognised that not only could they maintain and develop the relationships (as the group above) with students and faculty, but they could also use the case studies for getting new perspectives on their own thinking and management practices. These companies seemed to use the case writing projects as interventions in their own practices.

In the collaborative project with the company of Biogaia we created a conceptual framework: i.e., the three combined learning arenas, to create and execute a deeper collaboration with one company in industry. We termed this in-depth collaboration "intervention level" meaning that this could contribute to a "win-win" situation where both we as teachers, our students and the

company managers learned new things working together in different but related projects of mutual interest.

ACADEMY MEETS INDUSTRY – THE LUND INSTITUTE OF TECHNOLOGY AND BIOGAIA EDUCATIONAL COLLABORATION

The educational program for engineers at Lund Institute of Technology (LTH) at Lund University includes the use of case studies especially in courses related to the management areas. Existing cases in text books and distributed by case clearing houses are often set in foreign context, i.e., mostly American and British, and to some extent that poses some problems for the predominantly Swedish students. However, the greatest problem with case studies in the technology management area is the pace of technological change causing many cases to become outdated and obsolete. With this in mind we decided to introduce case writing in a course on Technology Strategy at the Lund Institute of Technology for last-year engineering students. The objective was both to generate more Swedish based and contemporary technology strategy cases and to influence the students learning strategies towards using a broader set of skills and to understand technology strategy in a broader firm and societal context. The cases are written in co-operation with Swedish companies that provide the topics and information needed in order for the students to construct the cases. One of our case host companies is the biotech company BioGaia that we have worked with since 2002.

This first contact (and then followed by networking) started with meeting one the company representatives started in 2002 during an executive course where we met at a executive course: “Business knowledge” delivered by EFL – Executive Foundation in Lund, the executive division of the Lund School of Economics and Management, Lund university. This was then followed by meetings at Biogaia, Lund in the autumn 2004 for planning guest lectures about this venture company and focused on its research concerning the probiotics *Lactobacillus Reuteri protectis* in Lund and Stockholm.

BioGaia

BioGaia is a Swedish biotechnology company that develops and sells probiotics products that support/enhance people’s health. BioGaia products are based on *Lactobacillus Reuteri* (*L. reuteri*) bacteria. This is a “good” and friendly bacterium – called “probiotics” – that helps battle the “bad” micro-organisms in the human digestive tract. The product is distributed in various forms (pills, chewing gums, yoghurts, fruit juices). Their vision is: “BioGaia contributes to the well-being of people all over the world by providing superior quality probiotic products and solutions”.

The BioGaia history starts back in the late 1980’s. Two Swedish entrepreneurs, Peter Rothschild and Jan Annwall, became inspired by the work of leading researchers in the probiotics field, and decided to pursue the possibilities presented by probiotics as a natural alternative to antibiotics. The health-promoting properties of *Lactobacillus reuteri* had already been documented before the entrepreneurs acquired the commercial rights to the strain. However, to receive market acceptance soon proved to be difficult. Firstly the food industry said that consumers wouldn’t buy probiotic milk. Then the authorities said that with probiotics added, such a product couldn’t be called ‘milk’. Then the entrepreneurs joined up with a small independent dairy and launched the first functional food product on the Swedish market: BRA milk (the B stands for bifidus, the R for reuteri, and the A for acidophilus)

which the authorities at first tried to ban. From this “rough” start BioGaia has developed their business in a slow but steady fashion developing new forms of distribution as well as concluding distribution agreements with various partners in the world. Some mile stones in the BioGaia development are:

1991: Launch of the first functional food product containing BioGaia probiotics

1993: First patent on *L. reuteri* granted

1997: The unique LifeTop cap bottle closure is developed

The first probiotic fresh juice and fresh cheese with *L. reuteri* are launched

2000: BioGaia launches its chewable tablet for Gut and Immune Health

BioGaia Probiotic drops, the world’s first probiotic in drop form, and BioGaia Probiotic Straw (former LifeTop Straw), the first probiotic drinking straw, go on sale

2004: The BioGaia Oral health products, probiotic chewing gum and lozenges, hit the shelves

The number of daily doses of *L. reuteri* sold globally passes 1 billion

2007: The number of daily doses of *L. reuteri* sold globally passes 2 billion

BioGaia has now close to 20 years’ experience in the field. Besides the in-house experts, they also now work with a global network of leading independent researchers and specialists in the whole world. The corporate and administrative operations as well as the sales and marketing functions are located to Stockholm, Sweden. Product development, productions and coordination, and quality control are located and conducted in Lund. BioGaia also conduct research, quality control and product development in their lab in Raleigh, North Carolina, USA.

The outline of the collaborative educational project

In the autumn of 2004 a contact was taken, initiated by the company, to possibly participate in and contribute to an organizational development program in the company due to a reorganisation. The main focus was the company’s vision and ambition to become even more market oriented in order to further develop their presence on both the domestic and international markets. They expressed a need to be educated, both theoretically and practically, in how a more market driven organisation could be designed in this special kind of industry. We decided to meet and brainstorm into this to get some basic ideas and see if we could eventually form a project.

In this first (with their main product manager) and a second meeting with the companies five representatives (including their CEO) we interviewed them about their needs and current situation. During the third meeting we discussed the main themes of the educational program and also the most appropriate format for such a delivery. As this project coincided in time with the Technology Strategy course at LTH we decided to try out a more elaborate and intense design (see figure 1) in order to get as much out of this project for both the company - and for the university.

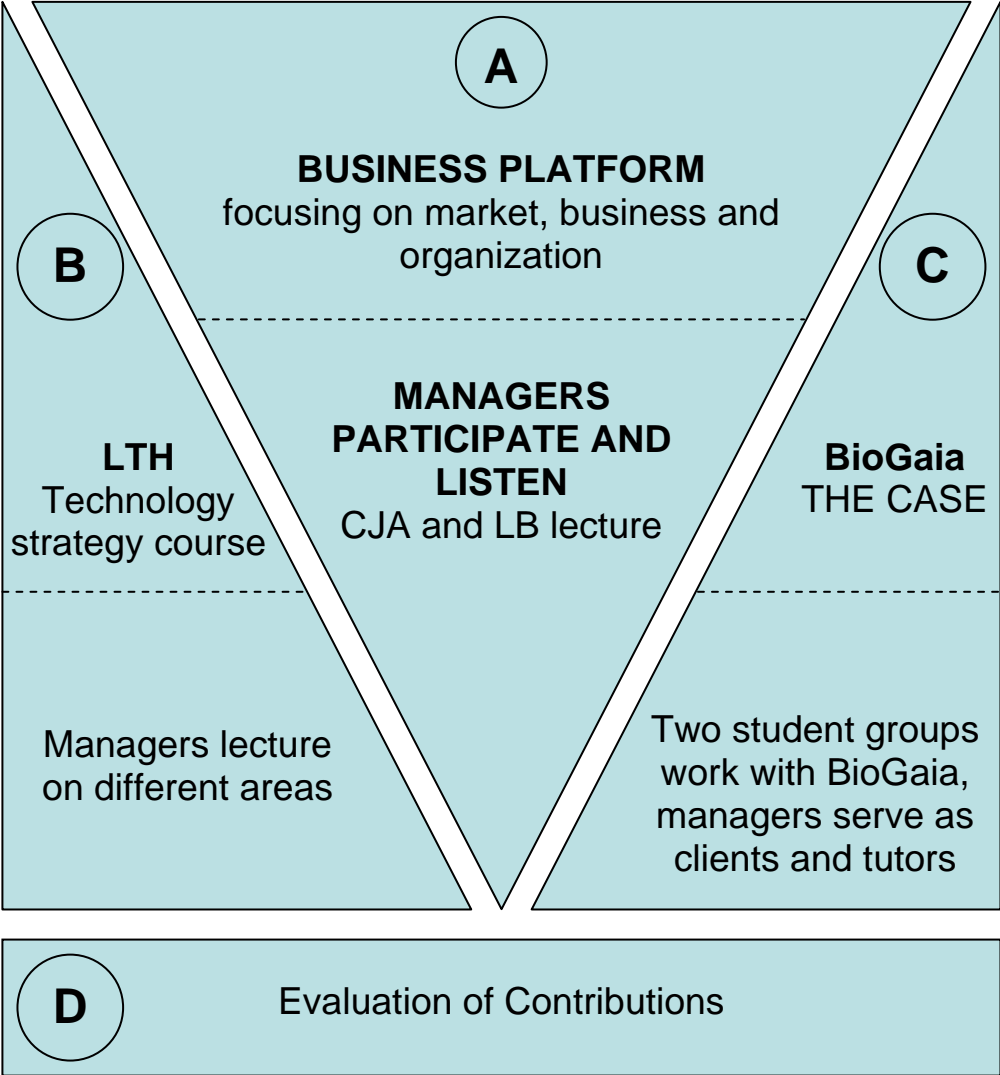
In the proposal to the company we stated the following:

“Introduction to the work and profession as product manager.

The objective for this course (including two additional learning arenas in figure 1) is to give the five participants an introduction as a product manager in the company Biogaia, Lund. The focus in the educational (including the collaborative parts) project is to educate the participants in business and industrial marketing (50%), business relations (30%) and organisation, team and management (20%)”.

Because both parties wanted something extra ordinary with lasting effects out of this venture a “bold” suggestion derived out of the preliminary meetings was put forward. This design included, besides the original idea of a more classical education effort, also the use of the company as a training area for students writing cases at LTH in the course Technology strategy. And for the development of the manager they could also design and deliver lectures within their individual functions at the same university course. So after a fourth meeting we all meet at the company and presented the goals of the project including the more elaborated design.

Figure 1: Learning arenas



The main goal with these three interconnected learning arenas was to simultaneously address the needs of all three stakeholders: managers, students and faculty.

The first (A) central learning arena (triangle): The Business platform

This is the main learning arena which includes six half-day workshops (i.e., combination of lectures, exercises and cases) held in the late autumn of 2004 and early spring of 2005. The purpose of the workshops was to address the profession of becoming a production manager in the “wide” definition of this profession and term. This learning arena was the original idea with the project. Each work shop had a main theme: a) Business platform, b) Industrial marketing and c) Relationship marketing. The learning material here included two text books and working with assignments and cases related to managing products and market orientation.

The second (B) learning arena: Technology strategy course

This course is focused on learning the topic of technology strategy (TS) in connection to business strategy. We stress here the importance of especially TS and this can be understood in depth in the earlier phases of innovation; from R & D and concept idea to technological collaboration between companies (Dodgson, 2000). The idea was here to address the “needs” of both the academic course and the BioGaia managers. Students got an in-depth insight into the company and phases of technological and business innovation because the managers prepared and delivered presentations into their unique areas of expertise. This was interwoven into the pedagogical frame of the seven week course which started in January and lasted into March 2005. Besides Biogaia two other companies participated with one lecture each. For the BioGaia managers both learning arena B and C meant collaborating with the students at the university.

The third (C) learning arena: Case writing

This part meant that the managers provided an opportunity for the students to produce a business case (and an instructors manual) that the company (i.e., the managers themselves and others at the company) could use in their internal development and education, for example in becoming more market oriented. Bengtsson & Asplund (2002) proposed that the students themselves can construct a teaching case and instructors manual in order to understand and address a company’s technology strategy. In this case construction process we stressed the key importance of the construction of a instructors manual in order to support new knowledge of both content issues and at the same time creating a good learning vehicle to support this. The managers and two students groups constructed two BioGaia cases and instructor’s manuals during the spring of 2005.

When we presented the whole learning project (Nov 2004) for the managers it read as follows:

- Introduction the special program at Biogaia (see the description above)
- The whole and the different learning arenas A, B and C
- What could be learned from each arena?
- The focus of the education and pedagogical format
- Our respectively roles and areas of responsibility
- Our expectations
- Participating managers and company
- The academic faculty i.e. teachers
- Expected contribution concerning each learning arena
- Time schedule and activities
- A+B+C

- What focus should we have on the Biogaia case?
- Follow-up Quality meeting 1 (December 2004)
- Other questions and clarifications

Evaluation with four managers at Biogaia

M1 Manager focus on delivery systems and logistics

M2 Manager focus on production and product development

M3 Market and Web-manager

M4 Manager focused on CRM and technical selling support

Question 1: When you - the managers at Biogaia- today 2008 reflect back on the collaboration and education 2004/2005 - what do you consider to be the most valuable contributions for your self in your professional development?

M1: See the connections between products, product development, production and the market/target groups. Gave me a language to reflect about business and organisation. To learn to talk the same “language” as the sellers on the market.

M2: See how the company works as a whole: Combining technology and business. A big thing for me! To understand how the company works in different stages of development. To help me to market ones production planning internally and externally.

M3: I had the marketing knowledge more or less before the education, but got here a necessary and relevant update. Learn to connect the marketing issues with business and organisation issues. I especially liked the book on “marketing to marketing” by Evert Gummesson focusing on networks and networking. Gave me new perspectives.

M4: The education gave me more self confidence when it comes to hold more “selling and market oriented” presentations about our product L. Reuteri and the company Biogaia.

Question 2: When you today 2008 reflect back on the education and collaboration 2005 - what do you consider to be the most valuable contributions for Biogaia as a company?

M1: Have given us - production managers and the Lund unit internally a better visibility. Now we can discuss more exact and clearer with the selling unit in Stockholm. I understand now more what they are saying and how to find the right arguments to sell in my/our ideas to them. We see now the bigger context.

M2: It has happened a lot since 2005! Quite amazing things due to this collaboration. Now we can sell our ideas better and the sellers really listen to us. We know now: Better?! See now the whole - not only the details to, for example, setting the production.

M3: To lecture against the current students at the university made my work more visible.

M4: As my work today, to a greater extent, is technical selling support the education and collaboration contributed to that I (and the company) is much more confident in my work and also to a greater extent work more professionally.

Question 3: Which importance/function had the preplanning phase of the project and your formulated expectations in the autumn 2004?

M1: It went as we, together with you, preplanning. Good! Also very good that our manager participated in this phase. This made them also more engaged and involved for what we were interested in becoming product managers.

M2: Set the aspirations right from the start.

M3: Got us engage! Set the standard!

M4: I assume that our planning and our expectations made it easier for you as external actors/professor to direct the education/collaboration so that the project suited and connected to our goals and unique work situation.

Question 4: Which importance had the figure/image over the three learning areas - that we together formulated - and then used as an “orientation map” over the whole learning process?

M1: Very relevant and useful! Funny to make different things with different purposes. Got a lot of responses from the students! Important to make connections and collaborations with the university.

M2: Good - Very good to see the whole picture! Interesting to talk about things you/I “burn” for! The case part was difficult to understand

M3: Gave both us and hopefully you valuable orientation. The PBL-Problem based learning method made it easier to learn several things.

M4: The figure/image gave an explicit overview over those parts and their inter connections in our collaboration/education.

Question 5: What importance had the lectures at the University for your learning (i.e., about your function/work at Biogaia)?

M1: The lectures at the university were very exiting and gave me/us much! The preparations for this gave us managers more clarity of our different competences/roles in Biogaia.

M2: Other (students) got to see more “details” and the whole company

M3: I think that Biogaia was developed to a great deal. This work model worked very well! Our different work roles were made explicit and more visible.

M4: I think this lecturing part was important because it gave me time and knowledge of how I can conduct a “selling” presentation about probiotics and Biogaia.

Question 6: If we should redo this project today again - should it be possible? Impossible?

M1: Not in the same design. We and the company have changed! But perhaps with another focus on current issues that are relevant.

M2: Not the same. I liked to learn about business. So perhaps more about that.

M3: I like the marketing part and of course the book Many-2-Many. Perhaps that part - but now deeper.

M4: Of course it is possible!

Question 7: If yes, what education/learning activities would you:

a) Keep?, b) Eliminate?, c) Increase?, d) Decrease?, e) Create

M1: The same leaning design, but create new learning areas/subjects.

M2: Create an activity where, for example, a journalist comes in to describe our work situation (as we did in an education in Hong Kong). How a workers life and work from another culture was portrayed. Very interesting about work in other parts of the world!

M3: Perhaps create new online lectures to combine management, selling, product development and production for even better communication. Show the challenging business reality of our business partners all over the world.

M4: Personally I should increase that part which meant mini-lectures at LTH because this gave me an opportunity to practice on the working task which is important! The other activities and parts I would keep the same.

Question 8: What do you remember the most from the collaboration/education?

M1: That you both are nice and that you made it so fun! To see the company and relate it better. It leads to other relevant related discussions internally. Gave us more identity in the whole company!

M2: The readings; Business platform and marketing. Easy to read and apply! Gave me another thinking and approach! Use the brain! Interesting to work with the case with demanding students!

M3: The networking and the thinking/reasoning about this. The importance of having key relations!

M4: The presentation at LTH

Question 9: Is there something else you would discuss that we haven't discussed yet.

M1 For you to come and contribute at the Biogaia Academy day!

M2-3: The actual personal "learning travel" for us! Better business woman's today! And having more confidence!

M4: Perhaps we could get more information about good basic literature and cases about marketing. A subject which I often come in close contact with, but which I haven't studied at the university level.

Discussion of the empirical findings

For the four managers at Biogaia, reflecting back on the collaboration and education in 2005, one of the most valuable contributions for them personally was the creation of a new business "language". The new concepts gave them help them with understanding of the whole business situation/landscape facing them in their new role as product managers. This learning's established in the initial part of the education contributed also to give the managers new confidence and familiarity with handling the combination of technology and business issues of the firm BioGaia.

When the four managers reflected back on the collaboration project – and discussed the most valuable contributions for Biogaia as a company they said that, they as a subunit of the company in Lund, have got more visibility/identity as an implicit result and that a more explicit link has now been formed between Lund and the Stockholm units. They said also that project gave us more identity in the whole company! Interesting to note is that one of the cases they was constructed for BioGaia by the students focused on the "communication issue" between these units! The findings also pointed out that this project with the LTH/university has been good in their effort of knowledge building/sharing relating to the external world.

The preplanning phase of the collaboration project (together with the managers) which addressed their and our pre expectations functioned very well. This we think because all four managers were involved from the beginning of the project and explicitly voiced their common

and individual needs. The preplanning gave us as learning “designers” of the whole learning arena the “golden” opportunity to more exactly address the total needs that all stakeholders felt. We then made a trade-off which is partly showed in figure 1.

The figure/imagery (figure 1) over the three interconnecting learning areas - which we together formulated in the preplanning for the whole learning process - functioned well and to fuller extent that we initially hope for. The managers said that this visualisation gave them a full overview and served thereafter in the learning process as an “overall map” in connecting especially their education as production managers with both lecturing on their current functions at the university and being a resource in the case production for the students. One intellectual hinder they voiced was that they had a hard time in the beginning of understanding what a case was really about and what its function were for the company. During the interaction with the students this got much clearer.

All managers also said (and several times) that they really liked their mini lecturing at university teaching and that this part of the learning arena functioned very well! They also said that their preparations for the university lectures also gave them all more clarity of their unique competences and different roles in Biogaia in becoming product managers.

They also said in the evaluation that they were willing to try this innovative work format again but with a new content! They all said we have been changed in the process and after - we can now better communicate using this new “language” that connects “technology” with business matters. What we would perhaps, in the near future, want is to go deeper in for example marketing and networking and also to get more tips from the university on good literature and links in this and other related areas.

IMPLICATIONS

We have now come to main implications for university teachers. What have then been the unique characteristics of this collaboration project in Lund with BioGaia? We think that first of all has been the innovative and collaborative mindset that is held by the managers in this very innovative company. Without their “intervention level” (Bengtsson & Asplund, 2003) attitude a project of this kind and range could not have been possible. Of course the timing was very good and this was pure luck and coincidence. Had the BioGaia manager approached us later that year the university course had already been planned or held and the connection to the university course; teaching and case construction with the students had not been possible. Thus, the first implication is to work with companies and managers that really see the opportunities in educational collaboration and to create clear educational gains for the company and managers in the collaboration project and not only for the university and the students.

We also think that the unique design process formed a unique pedagogical format (i.e., the three learning arenas) which explicitly communicated the overall and different learning’s for all parties involved at the industry and university; i.e., students, managers and faculty. All these stakeholders including the students have all been very satisfied with this new collaborating venture. The second implication is to try to design a pedagogical format that both address educational needs in the company and at the university and that benefit from interacting with each other.

Is it then possible for other companies and universities to create this type of collaborations? The answer to this is yes and no, but mainly yes! We think that one feature is that we as university faculty have to as Dodgson (2000) says go into the thinking of the 5th generation innovation process. This means for us at the university to open up and work together more closer with industry in addressing and achieving mutually shared goals. The university faculty could with their knowledge of both research and pedagogical formats invite industry to new, innovative and “daring” partner collaboration projects. If we, at the universities, could put also us in this frame of mind we could increase the valuable “friction” between these two contexts (i.e., industry and academy) that is needed for the prospering new future in education as well as in business.

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