An Interdisciplinary Procurement Project and Business Case: Successfully Developing Students’ Professional Competences

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Abstract

This article describes an interdisciplinary business case in which enterprises and professional associations are involved. At University College Ghent, we have been able to develop the students’ professional competences, by gradually introducing them into the corporate world.

We present a conceptual analysis of the procurement project in the first year, and the case in the second year of the Professional Bachelor in Business Management, demonstrating Vygotsky’s pedagogical zone of proximal development. We will demonstrate how the projects gradually enhance students’ professional competences in practice, necessary for their internships and the job market.

An interdisciplinary business case is a powerful means to getting students step by step into contact with the corporate world. The project presented here applies to any curriculum involving an internship. This essay about course management and best practices, could appeal to all academicians and professionals in education.

1. Introduction

In professional Bachelor Studies, it is of the utmost importance that students can quickly come into contact with corporate culture. However, only too often, students only discovered this world during their internships. Unfortunately, some students proved to be unprepared in the third bachelor year and eventually had to retake this essential part of their curriculum. In order to avoid these disappointments and lack of training, lecturers and assistants could lead the students towards a real-life business context gradually. Here, Vygotsky’s pedagogical ‘zone of proximal development’ comes into play [1]. His pedagogical zone of proximal development implies that only by taking one little step at a time, the student is enabled to reach the goals and competences necessary in everyday working environments.

Competences that have not yet emerged but could emerge in the students, should be stimulated throughout their professional bachelor. Full immersion at an internship in the third bachelor level, while students have not yet been introduced to the corporate world, has not always been an unqualified success.

At University College Ghent, Belgium, lecturers have been able to develop the students’ competences for the job market, by gradually introducing them into the corporate world, from the first bachelor year onwards. The project presented in this paper applies to any curriculum containing an internship. The components included, the method, the process and the evaluation are put into a ‘template’. Both the procurement project and the case are embedded in Logistics Management - studies offered within the Bachelor of Business Management - but can easily be transferred to any other field of professional bachelor in Business Management, Applied Computer Science, Office Management, etc. This essay about course management and best practices, could appeal to all academicians and professionals in education. Since our experience is linked to a project in Logistics Management, we will specifically talk about this procurement project. Within this project students are being introduced to the corporate world from the first year onwards.

This paper offers a conceptual analysis and elaboration upon the procurement project in the first year, and the case in the second year of the professional bachelor Logistics Management. For the procurement project in the first bachelor year, we will give an overview per week. We approach the case in the second bachelor year differently, emphasizing in particular the surplus value of the case and the complementary competences students acquire, in addition to the competences achieved during the procurement project in the first year. We will demonstrate throughout this paper how students gradually reach their professional competences in practice.
2. Procurement project in Logistics Management

In the first year, students immediately practice the theoretical knowledge they have gathered during the first term. At the beginning of the second term, they start off with an interdisciplinary procurement project. The students test their knowledge by practical experience. The project balances between the student’s level of independent performance and the student’s level of assisted performance, respecting Vygotsky’s pedagogical zone of proximal development. In interaction with knowledgeable others and supportive contexts, the students can develop their talents.

On the job market, employers in transport companies, distribution centers, a company’s warehouse or import / export departments, expect more of an ordnance manager than simply sending customs forms or having a fluent knowledge of English and their mother tongue. Companies expect general competences and want to recruit employees that can work independently and can co-ordinate a tangible situation when it comes to integral logistics. Students integrate the knowledge they have acquired in courses as Excel, Logistics Management I and Communication Skills in a first practical experience, two years before being dropped in the real corporate world during their internship. As regards content, students are being initiated into the purchasing policy of one specific company.

The goal of this program component is to refine and professionalize students’ talents and skills. It is interdisciplinary since they have to combine different competences in different fields, both theoretical and practical. Students learn how to collect data by means of studying the source material, planning, taking interviews, researching the purchasing process within the comfort zone of their family network, gradually trained to acquire new competences. First of all, students contact a company and in doing so train their communicative skills. In the first year, they are still allowed to look for a suitable company within the comfort zone of their family network, choosing a company that appeals to them. As it is their first contact with the corporate world, they do not have to limit themselves to the logistics sector. As soon as their choice has been made, they contact the purchasing agent or one of the assistants. They must then take an interview of this person in order to get an idea of how the purchasing department works in reality.

During the learning process, students are being stimulated to work on the case according to the standards given. We as lecturers, provide the students with a few sessions about making a Gantt chart, asking relevant interview questions, telephoning, writing emails and writing business reports. In this program component, two lecturers closely work together. After these sessions, students are enabled to put the theory into practice within the company of their choice. After each single step in the learning process, we organize sessions for feedback. (By sending an email to the author, it is possible to obtain the planning we followed last year.)

2.1. Objectives

The procurement project in the first bachelor is a partial module in Logistics Management project I. The objectives for this partial module are defined in the ECTS-file (European Credit Transfer System) of this module:

In team as well as individually, students must be able to recognize, formulate, analyze and solve a concrete problem concerning integral logistics. Also, they must be able to frame a desirable optimization in a virtual or real-life logistical business context. Students are hereby encouraged to work mostly independently on an effective solution and / or implementation in a structured manner. In order to do this, they need to be independent and critical, develop their problem-solving skills and reflect on their own and others’ performance.

A virtual or real-life case is used as a starting point for integrating the acquired theoretical knowledge on logistical aspects (logistics management, transport management, consignments, ERP (Enterprise Resource Planning), etc.) into a second practical experience in a professional and project-based way.

Within a given time frame, students must write a clear report on their findings. Students explain the results of their research and defend their views during a formal presentation [2].

In practice, first-year students work individually and second-year students work in team. They are gradually trained to acquire new competences. First of all, students contact a company and in doing so train their communicative skills. In the first year, they are still allowed to look for a suitable company within the comfort zone of their family network, choosing a company that appeals to them. As it is their first contact with the corporate world, they do not have to limit themselves to the logistics sector. As soon as their choice has been made, they contact the purchasing agent or one of the assistants. They must then take an interview of this person in order to get an idea of how the purchasing department works in reality.

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2.2. Proceedings of the project

In the ECTS-file, a brief description of the contents of the procurement project is given:

Depending on the project, the focus is more on aspects of logistics or on aspects of transport. Communication is either written (telephone scripts, emails, minutes, brochures, reports) or oral (telephone conversations, meetings, presentations), again depending on the type of project. Students use various computer programs (web browsers, e-learning environment, office suite in order to write minutes, reports, design a brochure, …) to achieve their goals [2].

In this paper, we will elaborate in detail on how the procurement project is carried out both technically and practically.
We deal with the procurement project in weekly sessions. The project is ‘work-in-progress’ during the second term, consisting of twelve weeks, according to the calendar of our University College. The students define the concrete project assignment, carry out a research, draw up a report and present their results. Communication, coaching and corrective feedback happen partially via the learning environment, and partially during consultations. In the first year, two lecturers are involved. The lecturer Communication Skills is responsible for developing communication skills throughout the project and the lecturer Logistics is familiar with the content such as BPM (Business Process Management using appropriate software), incoterms, procurement and purchasing policy.

2.2.1. Week 1. During the first class, students get an oral and written clarification concerning the program component. They immediately get necessary guidelines to draw up a Gannt chart. A Gannt chart is a bar chart, invented by Henry Gannt in the 1910s [3]. The Gannt chart is important in two ways: first of all students learn how to plan the proceedings of their project. Secondly, students immediately put into practice how to handle Gannt charts, which are also being used in logistic branches of industry, to indicate the start and finish dates of tasks. The Gannt chart can function as a template to record the student’s progress. After the first class, students’ quest for a suitable company starts. Once they have chosen a company, they look for more information about this company on the internet or several other sources. Some students were even allowed a look at the year reports of previous years. Subsequently they arrange a meeting with the purchasing agent.

2.2.2. Week 2. In the second week of the project, we teach them how to telephone and email correctly. They immediately hand in the first version of their Gannt chart after which they get feedback. This feedback is evaluated in particular by the content-substantiated lecturer. At every feedback session, both lecturers are present, in order for the lecturer Communication Skills to be abreast of the students’ proceedings. Planning the writing of their interview and / or their telephone scripts. To respect our timing, we evaluate the interdisciplinary case continuously, by evaluating the feedback sessions and the process of the project. This eventually shows their introspection in their e-portfolios. In week 5, students hand in an updated Gannt chart, followed by a second feedback session with both lecturers.

2.2.3. Week 3. In week 3, students have to hand in their mails with their appointment and confirmation for the interview and / or their telephone scripts.

2.2.4. Week 4. Students digitally hand in a short report of their company (maximum one page), in duplicate. Each lecturer evaluates the short report, emphasizing respectively content and communication skills. The short report must contain these subtitles, commented on in a quick-witted text:

- Name of the company (if possible registered office and legal form);
- Mission of the company (if possible vision and more specific objectives);
- Business activities;
- Economic importance of the enterprise:
  - Employment,
  - Innovation,
  - Sustainability,
  - Turnover,
  - …

2.2.5. Week 5. Students get instructions on how to prepare and take an interview, on structuring and phrasing of their interview. They learn how to write an assessing report, because they must incorporate a brief assessing report in their e-portfolio. They must evaluate the interdisciplinary case continuously, by evaluating the feedback sessions and the process of the project. This eventually shows their introspection in their e-portfolios. In week 5, students hand in an updated Gannt chart, followed by a second feedback session with both lecturers.

2.2.6. Week 6. Another deadline must be met. Students hand in their questionnaire for the interview.

2.2.7. Week 7. They first get feedback about the questionnaire, in order to compose interesting reports. During this session, students ought to bring an assessing report about the sequencing of the case and the individual feedback sessions. This one page-document is an integral part of their e-portfolio.

2.2.8. Week 8. We offer a course on designing a Business Process Diagram in Excel.

2.2.9. Weeks 9 and 10. Students write an exploratory report. They learn how to write such a report, supported by a template. The research report should contain these data in a maximum of ten pages, excluding title pages and bibliographical references:

- Short outline of the company;
- Description of the purchasing department (structure of the department, purchasing budget, organization chart);
- Description of the purchasing process for one or two products (by means of a Business Process Diagram and accompanying clarification).

The Business Process Diagram is drawn up in Excel, but the exploratory report in Word according to the
guidelines and house style of University College Ghent.

2.2.10. Week 11. In week 11, lecturers can provide free consultation for students, in order to adjust and perfect students’ final versions, on their initiative.

2.2.11. Week 12. During the last meeting students hand in their e-portfolio, consisting of:
- Gannt charts;
- Telephone scripts and emails;
- The interview;
- Research report;
- Intervening feedback reports (week 7 and 12).

Students present their project individually. During a conversation with the lecturers, students clarify and illustrate the competences they have acquired at every single step such as collecting data, telephoning, emailing, taking the interview, drawing up Gannt charts, writing the research report and feedback reports. Their performance assessment is mainly based on the development of a critical attitude and on formulating their experiences and conclusion fluently and correctly. Students are also expected to comment on the obstacles they had to clear away in order to carry out the research.

2.3. Engagement and study guidance

More than a cognitive series of tasks, students are also being evaluated upon the above mentioned competences, which are expected during contacts with businesses and during internships. Being actively involved by means of an interdisciplinary case, they learn and experience infinitely more than they would by just taking theoretical classes. Their attitude and manners must be professional, both in contacts with companies, and in contacts with their fellow students and lecturers. After all, this is of major importance in the corporate world.

Of course, students are never left to their own devices:
- All lecturers involved give instructions and provide guidance and feedback. Guidance is provided through announcements via the electronic learning environment and through advice and feedback given during staff consultation hours and compulsory consultations [4].

2.4. Evaluation of the student’s case

50% of the marks is awarded by the lecturer Communication Skills and 50% by the lecturer Logistics. The following criteria are considered:
- Has the student met the intervening deadlines?
- Has the student respected the guidelines for reports?
- Has the student exerted the subject matter concerning logistics and purchasing policies?
- Has the student applied the communication skills (planning, structuring, phrasing, layouting, overhauling)?

These competences - respecting deadlines, employing guidelines and house styles, planning, overhauling - are essential for successful internships in the third year. Evaluation of this interdisciplinary case, leads students step by step into the business world, in order to experience successful internships in the third year of their professional bachelor.

2.5. Indicators and final objectives

This case is scheduled over a weekly four-hour course. The accreditation is limited to 3 credits in the first bachelor. To conclude the best practices of this procurement project, students reach the final objectives, as enumerated in the ECTS-file:

In group, students can analyze a real or virtual problem or answer a question for optimization in a business context.

Students can come up with alternative solutions that integrate acquired knowledge and insight into the entire supply chain.

In group, students can deal with complex tasks in a professional and organized manner (drawing up a plan, reports, project portfolio and final report).

Students can communicate effectively and can handle the internal as well as external communication of the project, both orally and in writing.

Students can work as part of a team [4].

All these indicators and final objectives are achieved during the project. First-year students who succeed, prove to be successful in the case during the second bachelor year. The first step in the learning process towards their professional internship is taken.

2.6. Critical analysis of our first experience

The students progressed clearly, which some of them mention during their feedback. We quote three students, whose feedback was relevant and informative. First of all, we quote feedback by Katty Blanchaert, second-year student in Logistics Management at University College Ghent:

‘The project is a first, important introduction into the further curriculum of Logistics Management, as well as a significant case providing insight into the shop floor. The project reaches further than just field-testing the earlier achieved knowledge, by means of analyzing the purchasing policy and by reporting, using several resources. […] I have
learned to think along, to understand what a purchasing policy implies, why a delivery service is essential and what the anticipated pitfalls are.

Also personal skills are being developed. Am I accurate enough to bring the project to a favorable conclusion? Do I have the required flexibility to put myself in another position, to think problem-solving or progressive and to handle according to feedback and introspection? Finally, these aspects take a key role in the curriculum, but also on the job market. I think it is positive that the project is run in the first bachelor.

Although there is a drawback, in my opinion. If I would be in the lecturers’ shoes, I would relate the project to production. Production, import and export are the main branches of logistics. If the project would be related to these pillars, we would have been able to apply the knowledge we have attained in Logistics I and II. I think of import requirements, appraisal of suppliers, incoterms... Indirectly, English and French could also be included (logistics is mostly an international event), as well as transport, mobility and sustainability. According to me, it is an important project. After 7 years in the field, I notice that I am still gaining new knowledge during the project.’

As we have learned from our students’ feedback, the project would make a good international case, involving French and English courses. In a next phase, the first-year project could be incorporated in the international passport.

Other students pointed out some problematic areas while working on the case. This is shown in the Sophie Decroix’s feedback, second-year student in Logistics Management at University College Ghent:

‘Some companies do not want to give the information we need, because it is too confidential. They only provide general information. Other companies do not want to spend time on our questions. Some enterprises kept us waiting for an answer. All in all, taking the interview was instructive, as we could have personal contact with the corporate world for the first time. I think it is difficult to assemble the correct information and had to ask colleagues for advice to carry out tasks correctly. The assignments are at this point too broad and more detailed instructions would be helpful. I believe that the project will be more efficient if there are some adjustments in the future.’

Brecht De Groote, second-year student in Logistics Management at University College Ghent, endorses Sophie’s feedback:

I regret the fact that this project absorbs much time, in proportion to the result. The report is not presented in public. (Note: Students did send their reports to the businesses they had investigated.) The procurement project is opportune for promoting our organizational skills and we learn to know the corporate world a little bit better.

A critical analysis of last year’s experience with this interdisciplinary business case made clear that some aspects were subject to improvement such as the timing of the interviews and the relevance of the results.

2.6.1. The timing of the interviews. The first time we organized this program component, students could take the interview during week 8. Experience showed that this moment was too late to process their data into professional business reports. Thus we decided to plan the interviews earlier in the term. Now students must take the interview before week 6, which enables them to meet the written professional paper deadline.

2.6.2. The relevance of their results. Students ought to present their report to the company they have investigated. The case in second bachelor meets students’ expectations, as they present their report, based on an authentic subject of inquiry, to external companies.

2.6.3. The international passport. In the long run, the program component can be embedded in the international passport. It is possible to involve international businesses, with English or French as official language.

The lecturers’ learning process resulted in the above improvements made, based on experience.

3. Interdisciplinary case in the second bachelor Business Studies (Logistics)

In the second year, the degree of complexity is slowly built up. Accreditation and study load expand from 3 to 5 credits. Students now represent University College Ghent in a case they present to an external public, in week 12 of the second term. In the first bachelor year, their presentation of the project was limited to two lecturers, in the second bachelor year they present their investigation to an authentic panel of companies from the field of action. As professional delegates of the University College they take care of public relations.

The lecturers involved give instructions and provide guidance and feedback. Guidance is provided through announcements via the electronic learning environment and through advice and feedback given during staff consultation hours and compulsory consultations [5].

In the academic year 2013-2014, the second bachelor Logistics Management at University College Ghent cooperated with Port of Ghent. Port of Ghent inspired research, starting off with a company visit, firing students’ imagination. They gave the second-year students a research program in consultancy; investigating the role of customs in the different businesses in Port of Ghent. Students had to
write an assessing and comparing report on the role of customs, primarily in Port of Ghent, besides other Belgian ports (Antwerp and Zeebrugge). Students were divided into groups of maximum four students and investigated one of these subjects, related to Port of Ghent:

1. Customs;
2. Green Lane, Blue Lane, Blue Belt, AEO (Authorized Economic Operator);
3. Maritime Single Window by way of NCTS (New Computerized Transit System);
4. Phytosanitary certificate;
5. Licenses and deposits.

This investigation had never been done before and made this case absolutely innovative for our students and more complex than the project in the first bachelor.

In the academic year 2013-2014, the case was set up for the first time at the beginning of the first term. Experience from previous years had taught lecturers that starting early is the formula for success. Students are immediately immersed in the case and know how to plan and manage their assignments. Obviously, the work load of this project is not to be underestimated.

Another difference from the procurement project in the first bachelor year, is the team work. This will have an impact on organization, communication skills and assessment (peer assessment). In sessions concerned with communication skills, students learn how to send a summons to a meeting, how to assemble and how to take minutes.

Last but not least, they have to vouch for the final result. Together with the lecturers, they must guarantee a qualitative report and professional presentation. Representatives of all teams confer on who will execute which tasks. All students are responsible for the invitations, the text in the newsletter of our University College, the professional presentation for the panel of company representatives, catering during the presentation, renting of the rooms, and so on.

Many steps from the first-year project are repeated at the students’ level, so they can work individually or in team, supervised by the lecturer. For some other steps such as taking minutes, assembling, BPM (Business Process Management), additional sessions are organized. Every step in the case becomes more complex, and this again endorses Vygotsky’s ‘zone of proximal development’.

### 3.1. Additional competences

Students attain several additional competences in the case during the second bachelor:

- Aptitude for organizing;
- Communication skills (emailing, telephoning, interviewing, reporting, sending a summons to a meeting, assembling, taking minutes, presenting, communicating orally);
- BPM (Business Process Management using appropriate software);
- Working in teams.

Step by step, students are gradually prepared for their internship in the third bachelor year.

#### 3.2. Team work and peer assessment

Students are evaluated on their process and product. The product is the final report in which all preliminary enquiries of all teams are joined together in one template. This report is delivered to Port of Ghent and other companies involved. Students’ performance at the end of the second term, is evaluated as well.

Because students are working in teams, lecturers have included peer assessment. Criteria for peer assessment are:

- The student frequently makes a valuable contribution.
- The student generally works goal-oriented.
- The student is always well-prepared during meetings.
- The student adopts a flexible attitude when making appointments.
- The student helps the team to respect the timing.
- The student is cooperative in helping other group members.
- The student is always present at gatherings.
- The student is clearly informed about the content and goal of all assignments.
- The student regularly introduces constructive ideas to ameliorate the quality of the result.
- The student regularly takes the initiative instead of awaiting results.
- The student listens to and is open to opinions and contributions of other team members.
- The student informs the team of his or her contribution.
- The student wants to reach a compromise in discussions.
- The student actively takes part in consultations.
- The student actively looks into possible solutions when experiencing adversities.
- The student accepts criticism of other team members.
• The student actively takes part in the realization of the project.

Peer assessment encourages students to give each other feedback during the term and to support each other, complementing each other's skills. The team members challenge each other to perform better, than they would have if left on their own.

3.3. Close cooperation with the corporate world

The main asset of the business case in the second bachelor year, is the close cooperation with the corporate world, in our case Port of Ghent, an important industry creating employment for our graduates.

In the academic year 2013-2014, we have presented our case for a panel of experts, consisting of senior customs officials and managers of the port installations. For every investigated topic, we have selected one student to present the research results, during the formal presentation. Those students were once again individually trained to perform their presentations fluently.

Students have prepared all experts a hospitable welcome, whereupon a lecturer took the floor to introduce the students. Five students successively presented the results in a very professional way, supported by a PowerPoint, made up according to the house style of University College Ghent. Both the PowerPoint and oral presentations had been evaluated before, during an exercise.

After a short break, we continued to inform the audience. We have selected a junior expert in every team, to be seated in a panel discussion, answering questions from officials and managers. The five selected students – different from the students that presented the research results before the break – were the team captains and knew the research results thoroughly.

As a panel discussion requires specific skills, we have opted to moderate the panel discussion ourselves. The moderator should be able to repeat and pass on questions, summarize answers, respond to discussions, monitor timing, allow someone to speak and so on. In linguistic-oriented bachelor's, it would be possible to consider attributing the role of moderator to a fluent student.

Moreover, as to be prepared to all circumstances, all teams had to conceptualize a few essential statements to comment upon. The moderator could present these statements, in case the public did not immediately react.

Furthermore, the complete presentation and panel discussion was filmed, to provide absent externals with the results.

On the conclusion of a successful presentation and panel discussion, students could network with authoritative customs officials and managers from port installations during an informal reception. The success of our business case was obvious, while employers were negotiating with students, concerning their internships. A first and prominent step towards the corporate world was made.

3.4. Future cooperation

Because of the successful presentation of research results, we invited to present our results next year – in the academic year 2014-2015 – in the new Visitors Centre of Port of Ghent, to reach a larger audience. In the field of communication skills, this location offers new possibilities and this transfer will reinforce the win-win situation for both students and employers. The Visitors Centre is the business card of Port of Ghent:

‘Through the Visitor Centre, the Port Company is capitalizing on the growing interest in the port of Ghent. Visitors are attracted to the port on the one hand by this Visitors Centre and on the other by the offer of free trips around the port on the Jacob Van Artevelde port yacht. An excellent, comfortable and prearranged way to visit the port [6].’

The cooperation between University College Ghent and Port of Ghent is continued, on the basis of the satisfying research results. In the academic year 2014-2015, lecturers and students are given a new and complex research question.

Port of Ghent has selected a new topic. Again, logistics will be the main topic. Logistics is of main importance for the development of the docks. Broadly speaking, in the coming years the Port Company will further invest in the development and upgrading of the docks:

‘Kluizendok will be further completed by means of dredging works along the quays at the canal side and it will be extended by a quay for deep-lying vessels and a quay for inland navigation 2013-2014 [7].’

The new research question corresponds with these developments. Port of Ghent wants to expand a complete cluster logistically, to establish the container terminal in this dock. The suggestion is to execute a market research in a few companies, with fast moving consumer goods. Students should identify floods, different means of transport, capacity, distribution channels and so on. New skills will be trained in order to execute qualitative market investigations. The final presentation should take place in the Visitors Centre and the responsible person, will invite the complete Commercial Department and the Strategies Department for a plenary meeting to hear the results. The students’ newsletter and professional invitations will reach even more potential employers next academic year.

4. Conclusion
In this paper, we have pointed out the surplus value of projects for first- and second-year students. They acquire many competences, before starting their internship in the third bachelor year. We have offered a conceptual analysis and elaboration upon the procurement project in the first year, and the case in the second year of the professional bachelor Logistics Management. We also demonstrated how students gradually reach their professional competences in practice. Thus students prove to be more successful and business-minded once they enter the work field by means of an internship. Vygotsky’s pedagogical zone of proximal development proved to be invaluable in offering us the tools to set up this procurement project and case.

We will continue and extend several projects in different study programs at University College Ghent in future. The procurement project in the first bachelor year and the case in the second bachelor year, open up new perspectives. The link with the international passport is obvious. Involving international businesses in Belgium, with French and/or English as official language, could offer new prospects to our students. Getting students ready for the corporate world, remains one of the most challenging objectives in professional bachelor studies. Accomplishing the procurement project and case, justifiably gives both students and lecturers satisfaction.

5. References


