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Reality- Based Learning: How to get Business Students Down to Business

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Reality-Based Learning, RBL, is a teacher-driven initiative introducing the core business administration subjects to first-year business students by means of making business plans. This paper empirically accounts for the development of RBL over three years. RBL is scrutinized for pros and cons by a proposed education development framework. When the educational change is dissected and related to prevailing teaching contexts, areas prone to further development are identified. Results indicate that RBL has been developed by a few teachers, both in spite of and due to the lack of long-term pedagogical strategy and development incentives at the department and school levels. This paper concludes with the suggestion that the education development framework is apt for both ex-ante design stages and ex-post evaluation of course parts, courses and entire programs.

This paper is on learning about teaching. The backdrop is higher business education in Sweden. Lund university is the third largest university in Sweden and the School of Economics and Management runs one of the single largest departments in Lund, the department of business administration. This department faces a challenge, motivating faculty to engage in innovative teaching methods. One particular innovation initiative called "Reality-Based Learning" (RBL) will be critically examined herein. RBL is a student assignment initiated the first time in 2004. It spans over an entire term. It is a student-group-driven, skills-oriented business project, outlined and presented, both orally and in writing, in the form of a business plan. The assignment is directed by minimal instructions from teachers, assessments are made both by peers and by teachers, and the primary learning outcome is an understanding of business as a subject that integrates several core areas of knowledge within the field of business administration.

Changing Teaching Format: "What Have We Done?"

The initiative to engage with RBL was taken as a reaction to how we previously introduced students to the first semester of business administration. What we served students the first day of the course, often the very first day of their university lives, was a wide array of administrative details and instructions, followed by a semester of hard core theories of organization, marketing, management, and financial accounting.

A number of years teaching business administration along with consultancy work told us to follow what Whitehead (1929, in Jones, 2006) called "a zest for business." There is wide support, of various kind and origin, to be found for RBL. According to Biggs (2003), most people remember and learn about 10 % of what they read but about 20% of what they hear. However, he claims that 80% of what you use and

do in real life is learnt and remembered, whereas 95% of what you teach someone else is retained by most people. Magee Greenstein and Hall (1996) show how student-generated cases develop group interaction skills and students' oral and written communication skills; further, Van Den Hurk (2006) suggests that time planning skills and self-monitoring positively correlated to study achievements.

Pal and Busing (2008) account for an initiative similar to RBL. Through the integration of different business disciplines and an explicit business plan focus, they conclude that students have high expectations of the course; this, however, requires coordination between the sub-disciplines involved. They also suggest the risk of "infringement on academic freedom" and that "real world experience" is of particular importance. Raelin (2006) describes how reflection on real-time work experiences stimulates collaboration and improves "collaborative leadership." This is nuanced by Harrison et al (2007), who claim that "the sustained pressure in business schools to adopt a teaching curriculum and pedagogical approach that appears immediately relevant to the perceived needs of practitioners is overwhelming [but we] maintain that university-based business schools can paradoxically be invaluable to business and industry, not by becoming overly anxious about immediate relevance, but by recognizing that the education and development of the individual as a whole through exposure to a plurality of paradigms and perspectives is what sets universities apart and makes them distinct from other executive education providers." Goltz et al (2008) propose that "a key argument for teaching [team work and problem-solving] skills concurrently is that the ability to solve an unstructured real-world problem within teams is what is needed outside the classroom and that this requires the use of both sets of skills simultaneously" (p. 541). Proserpio and Gioia (2007) show how technological developments affect how we could and should teach students. Nemanich, Banks and Vera (2009) also show

that confidence in the instructor's expertise, a perceived relevance of content, and a "social richness" of the learning environment is appreciated by students and generates a greater understanding of causal relationships among course concepts. Ottewill (2003), though, sums it up when saying: "If [students] are passionless then something vital is missing. It is therefore entirely appropriate to engage students by appealing to their hearts as well as to their heads" (p. 194). Hence, we claim – based on a multitude of reasons - that RBL has a role to play in creating a zest for business, a significant role!

Still, changing the teaching methods the way we have done with RBL is a challenge to an entire teaching faculty, hence it has not passed without critical comments. We believe this is a common phenomenon in the university world and it raises important questions. Well-known contributions to organizational learning such as Argyris (e.g. 1997) and Senge (1990) have introduced concepts like single and double loop learning, and adaptive and generative learning. In essence, these contributions concern the difference between learning to stay the same and learning to change. Hanson (2001) discusses how educational change concerns organizational memory and learning, and institutional resistance to change and isomorphism. Hargreaves and Goodson (2006) have shown how waves of reform, leadership succession, student and community demographics, teacher generations, and school interrelations, interact and how changes in these factors shape schools over time. They conclude: "schools are not all the same; neither are they islands" (p. 26).

The challenge of RBL to students, faculty, and firmly ingrained teaching methods is two-fold with inward (organizational change perspective) and outward (student interest perspective) aspects. The question we have asked ourselves is: How do we bring students down to business in spite of institutional resistance?

The aim of this paper is to present and critically examine our effort in improving learning conditions for students by teaching a student-driven live case. In so doing, we also aim to present a model for systematic examination of educational change efforts.

Theoretical Contributions on Teaching and Learning

In order to come to terms with the actual teaching and learning process, we use Biggs (2003) as a guide. His views on university teaching are well aligned with our ambition to influence and improve student learning. Other authors are also relevant, e.g. Kolb (1984) and what he has labelled the Lewinian Experiential Learning Model. In an iterative cycle of concrete

experience, reflective observation, abstract conceptualization and active experimentation, learning takes place. Boyatzis and Kolb (1991) discuss skills in particular, where skill is defined as domain-specific and rich of knowledge, as an integrated transaction between the person and the environment, and not to forget, developed by practice. Even though the skills orientation is well in line with the skills focus of RBL, Biggs' (2003) model of constructive alignment of presage, process, and product offers an approach specific to university teaching. Dees, et al. (2003) present an alternative model of university teaching without the clear distinction between separate phases. Biggs offers a well integrated and consistent model with a sequentially analytic, and methodologically appealing, approach.

Constructive alignment. The overall "3P" model of constructive alignment consists of three parts: presage, process, and product. The model outlines a consistent system in which individual (student factors) and institutional (teaching context) conditions interact with what is actually done by students and teachers (teaching- and learning-focused activities) and how these activities transform into deep understanding of a subject (learning outcomes). The 3Ps are *presage* (student factors and teaching context), *process* (teaching and learning activities) and *product* (learning outcomes):

- "Presage" takes place before learning. Student factors such as experience, knowledge, talent, and motivation interact with the teaching context, i.e. school and classroom climate, objectives, teaching, teacher qualities (professional, social, etc.) and institutional procedures (pleasant or awkward).
- "Process" is what takes place during learning. Teaching-learning activities (TLAs) are divided into three categories: i) teacher-directed, ii) peer-directed, and iii) self-directed.
- "Product" is the outcome of learning. Through examination, teachers make an assessment of student knowledge as a result of teaching/learning, affected by TLAs and the interrelation between student conditions and teaching context.

Students learn in different ways. Biggs (2003) uses the terms deep learning and surface learning. We, as teachers, should always strive for teaching methods that encourage deep learning instead of surface learning. "Surface" denotes rote learning, memorizing the meaning of words or lists of factors in order to be able to repeat them when asked to. "Deep," on the contrary,

signals an understanding which also comprises understanding of context, the ability to argue around pros and cons of different approaches or perspectives, and the ability to apply a suitable idea to an actual case. Although the sequential character of the 3P model is appealing to us, we find the relations between presage, process, and product important. It is in these relations the “constructive alignment” is to be found. Two relations are therefore of particular interest to us:

1. Presage/Process: student factors and teaching context – learning-focused activities.
2. Process/Product: learning-focused activities – learning outcomes.

Student Factors and Teaching Context Affecting Learning-focused Activities

Following Biggs’ original model, student factors concern variables such as students’ prior knowledge, interest, ability, and motivation. Being exogenous to schools, these factors may be influenced by the initial selection of the school, itself possibly influenced by the appeal the school has to students. Learning-focused activities may in this way be an indirect way of positively influencing the average level of student factors. In relation to this, Ottewill (2003) suggests that universities could use research to stimulate and develop teaching and in particular recognize the affective dimension of learning. Instrumentality in teaching will lead the students into boredom, tutor dependence, and a lack of curiosity. They may end up preoccupied with summative assessments and develop an aversion towards subjects without self-evident relevance and a disinclination towards helping and supporting peers. If this develops into a pattern of behavior, it is likely to affect the school attractiveness negatively over time as well as the individuals’ post-university performance.

The school’s attitude towards students is of major importance. McCulloch (2009) discuss how viewing students as “consumers” leads to an unfortunate distance between the student and education. “Consuming education” suggests that students could lean back and let the university and its administrative and faculty staff feed the students; therein, students’ own participation in and influence on the learning taking place disappear from the educational horizon.

Process and Product Relation: Learning-focused Activities Affecting Learning Outcomes

The way teaching is carried out affects students’ learning. The recurring theme here is that active students will engage in deep learning, passive students are prone to surface learning.

Dart and Clarke (1991) claim that exposing the students to a multitude of learning experiences increases student learning. Learning experiences could involve negotiating the curriculum, peer discussion and teaching, learning contracts with a variety of assessment forms, and time for reflection. Wierstra, et al. (2003) juxtapose “reproductive” learning to “constructive learning” suggesting that a conscious student orientation discourages reproductive learning like memorizing and stepwise processing facts known as “rote learning.” Student orientation means active learning and a large degree of student self-regulation. Diamond, et al. (2008) agree to this idea: deep learning is facilitated by student activity – active learning means that knowledge is constructed actively and not merely served to you by others. Bonwell and Eison (1991, cited in Smart & Csapo, 2007) claim that active learning is recognized when students are active and involved in more than listening and when instructions emphasize students’ skills. This results are students developing higher thinking skills and exploring their own attitudes and values. Deep learning is also about the approach and attitude to the learning process adopted by the student (Trigwell, 2006). According to Trigwell (2006) the students’ approach can be changed through a change of the context in which the learning takes place: by changing the context (e.g. by changing the course structure), the teacher can stimulate the students into adopting deep learning.

Ramsden (1992) proposes that deep learning reveals itself in the student’s intention to understand. Deep learning has an internal emphasis where new knowledge is related to old knowledge. Individual pieces of knowledge are structured into a coherent whole. Surface learning, on the contrary, is recognized by how the student merely intends to complete the task at hand. There is an external emphasis underlying surface learning, with students being sensitive to the demands of the assessment. Individual pieces of facts or knowledge are simply memorized, thus being disconnected from any context or relationship to other knowledge.

The observed learning outcome could be expressed in the SOLO taxonomy (Biggs, 1979). The taxonomy is helpful when “deep” and “surface” learning outcomes are to be made operational. The structure of our understanding is observed on four levels (from surface to deep):

- i) uni-structural (single perspective),
- ii) multi-structural (several discrete perspectives),
- iii) relational (interdependent perspectives), or
- iv) extended abstract (perspective contingencies).

So, what should teachers do, then? First of all teachers should know what they are doing. Fernandez-

Table 1
Analytical Framework (*L.O.* = *Learning Outcomes*)

Educational Change	Presage	Process		Product		
Teaching Context	Student factors	Active & deep	Passive & surface	Qualitative L.O.	Quantitative L.O.	Affective L.O.
Professional development activities						
Feelings of uncertainty						
Teacher participation in decision-making						
Transformational leadership						

Balboa and Stiehl (1995) present five generic components of “pedagogical content knowledge.” Knowledge about (a) the subject matter, (b) the students, (c) numerous instructional strategies, (d) the teaching context, and (e) the teacher’s own teaching purposes will influence the quality and the effect of teaching. Wouters (2008) exemplifies one factor relating to “instructional strategies,” suggesting that the order of the various parts within a subject matter is important: teaching introductory accounting and finance should start with cash flows, quite the opposite order to what traditional textbooks promote. In that way, students’ steadfast acquaintance with the cash concept is used as a starting point when introducing more abstract concepts such as costs and revenues.

Methodology

This study is based on first-hand observations of the authors. These observations are critically examined following a framework derived from relevant theoretical contributions from selected authors. The selection was guided by keywords such as: “constructive alignment,” “educational change,” “teaching context,” “deep learning,” and “learning outcomes.”

The empirical presentation is based on our own recollection, a number of recorded film clips, a series of powerpoint presentations, several student survey results, and two sets of minutes from focus group review sessions involving students. The analysis is a function of our theoretical framework and our own self-scrutinization, which is evident in the empirical analysis. Although we draw conclusions from the analyses from a rich empirical base, we consider them tentative and open for discussion.

Changing Teaching Methods

The 3P model by Biggs is used as an analytical frame of reference when looking closer at the RBL

initiative. Since educational change normally is an institutional endeavor, it is interesting to look closer at the four factors affecting the innovation of teaching methods, suggested by Geijsel, et al. (2001):

- professional development activities,
- feelings of uncertainty,
- teacher participation in decision making, and
- transformational leadership.

“Professional development activities” concern keeping up with developments in the professional field, putting new insights and developments into practice, reflecting on one’s own performance, and cooperating on policies and practical matters.

“Feelings of uncertainty” arise from the teachers’ beliefs of vulnerability in the teaching profession, which are negatively related to the willingness to adapt new innovations.

“Teacher participation in decision-making” is about how teachers’ experiences influence the implementation of innovation.

“Transformational leadership” sums up the schools’ vision statements, the prevalence of individualized support from school management, and other forms of intellectual stimulation to educational change.

These four factors represent conditions for educational change; however, they also indicate the status of current teaching practices in a school.

Analytical Framework

The theoretical references are summarized in Table 1. This is an analytical framework, used as a template for the analysis.

On the horizontal axis, we outline the three phases of the 3P model of Biggs (2003). Observations along these phases are related to the vertical axis, where the four different influences on educational change

suggested by Geijsel, et al. (2001) are used. We consider these influences adequate proxies for the part of Biggs' presage phase called "teaching context." The idea is to see, first, in what category each different part of the RBL change initiative is sorted. The status of each of these different parts is then related to the teaching context. In such a programmatic analysis, both the nature of the RBL change efforts, as well as possible teaching context relations will surface.

Reality-Based Learning in Higher Business Education

The locus of the change initiative is the department of Business Administration at Lund University. The description will be outlined in accordance with the 3P model as presented by Biggs (2003, see above).

Presage: Student factors and teaching context.

The course RBL starts off the first day of the semester of the introductory course in business administration. From experience we know that for a majority of the students this is the first course they take at the university level. When entering the large auditorium, in which we gather all the 300-350 students accepted to the program each fall, they all have their individual expectations of what to come. The majority of them expect a general introduction to the course and the program, which is a common procedure at the department as well as at the university in general.

The department has given introductory courses in business administration for more than 30 years. Much of how we do things is inherited, gradually refined and institutionalized. However, the RBL course is designed to be different from all other courses: in RBL the focus is on the students and their activities and, as much as possible, on bringing the real world into the classroom by focusing on what happens outside. Therefore, instead of providing the students with administrative information, we do something unexpected and introduce them to a day of intense and highly engaging activity. The purpose of the day is to give the student an idea about what it is like to start up and run a company in the real world and to set a positive tone for the rest of the semester.

Process: Learning-focused activities. The purpose of RBL, besides introducing the real world of doing business into the classroom, is to put the students and their learning in focus. In this section we describe how we have designed RBL in order to put the emphasis on student-directed and peer-directed activities.

The very first day, all students are introduced to the subject of business administration and the concept of RBL. We start by dividing the students into groups

consisting of six to nine students in each group. Thereafter, in collaboration with all the 300-350 students in the auditorium, we brainstorm around various products, their pros and cons and by voting pick one to create a fictitious company. This is followed by business planning in terms of product and market analysis and financial planning. In all discussions we use common language, without using any specific academic concepts or models. Without having heard about the concept the students create their first SWOT analysis (Strengths and Weaknesses of the company, Opportunities and Threats of the market) intuitively. The common purpose of the different steps is to make them simple and recognizable to students. During the day we shift between teacher led and student led activities. The day ends with summing up a basic income statement and balance sheet. Then, at the very end, the rest of the semester is presented and students get their first assignment: to work in the student groups formed during the day in order to come up with their own idea of a company and a product. The students will then, throughout the semester, work in this group of six to nine people and develop their idea into a business plan. The back-bone of the methodology is that the students create their own business case. This case is gradually developed in four steps over the semester so that at the end, the students will present a final version of their business plan, designed in order to meet the requirements of potential investors. The course is compulsory, and graded only with pass or fail.

The RBL course runs in parallel with the four courses in business administration that the students take during their first semester (marketing, organization, management accounting, and financial accounting and reporting). The students use the traditionally taught courses to acquire knowledge in order to improve their RBL business plan. The students are instructed to build the live case based upon their own research on the business and product market and to refine their business plan. For each of the four assignments (about once a month during the semester) the students have a presentation where they in front of a group of around 30 students present their idea. The presentation is 10 minutes long, made in English and supported by power point slides. Each presentation is followed by a five minute peer review presentation, which is also delivered in English. The peer review provides the opportunity to get new ideas for improving the business plan. By the fourth presentation, the business plan is finalized.

After the first introductory day, the university staff activities are held at a minimum. Instead, focus is on the self-directed and peer-directed activities conducted by the students in the student groups. The instructions for each of the four assignments are given to the students in film clips on YouTube (<http://www.youtube>

.com/watch?v=r6J1srD5iDs). The teachers record and publish an instructional and inspirational movie two weeks before the students are to present their assignment. About a week before the presentation we run an “Open House” to which the students that have questions regarding the assignment can come for guidance and individual or group meetings with teachers face-to-face. The students hand in their assignment two days before the presentation to their supervisor as well as to the student group conducting the peer review. After the presentation the students get instant feed-back from the peer review group, the other students in the classroom and their supervising teacher. The general idea is that the students are to use the information they get from their peers as well as teachers to improve their business plan and presentation skills.

When the students hand in their final version of the business plan, the incumbent teachers get together in order to single out the four best groups. These groups get to present their business plan live, on stage, in front of all fellow students as well as a panel consisting of four to five professionals from industry. The panel selects the winning business plan and the winning group of students receives an award. All the finalists are given a diploma for their achievements.

The element of competition has been introduced into the course in order to further increase the motivation of the students. The purpose is also to send a signal to the students that the student groups that makes an extra effort may be acknowledged and rewarded for doing so. The competition and the conditions for the competition is introduced to the students on the first day.

In its current shape and form, three teachers run the RBL course, using somewhere around 600 hours or 50 hours a month per teacher.

Product: learning outcomes. The last P in the 3P model refers to the product, i.e. what the students have learned. The learning objectives are that the students acquire a deeper understanding of the subject of business administration and its sub-parts. Another objective is to understand how these sub-parts (marketing, product development, organization, management accounting, and financial accounting and reporting) interrelate and together form the strategy and every day life in a company. How do we know that we have reached our objectives?

At the end of each course we have course evaluations consisting of forms for the students to fill in as well as focus groups. Based upon the results of the course evaluation and the teacher-student dialogue during the semester, we can see that RBL and the approach we take are appreciated among a vast majority of the students. They express how it is interesting and stimulating to work on their own projects and to be free

to develop their own ideas; however, there are some students who, especially in the beginning of the course, feel frustrated due to the lack of teacher-led activities in the course. As the semester progresses they get more and more comfortable with the working conditions and the frustrations fade away. There are also students who expressed discontent with the size of the groups saying that they are too large (the groups consisting of nine students) in order to create a feeling of togetherness and to make sure that the workload is evenly spread between students.

Analysis

The analysis is structured in three parts. First, we reconsider the educational change initiative in the horizontal dimension. Second, we look at the teaching context in the vertical dimension. Third, we examine the relations between the two dimensions.

The Horizontal Dimension: Educational Change

In Table 2, the RBL initiative is summarized in terms of change observations. Presage observations are in essence directed towards welcoming and relaxing the students. The main effect observed from those changes is derived from the introductory day: students become relaxed towards teachers and fellow students. The students are also genuinely curious about how things relate to each other when starting a company. The process part is signified by the wide variety of TLAs. The product part is in the same way markedly biased towards qualitative and affective learning outcomes.

The Vertical Dimension: Influence from Teaching Context

Presage, process and product aspects of the RBL initiative are contingent on the teaching context of the School of Economics and Management, first and foremost by that of the department of Business Administration. The observations of teaching context are summarized in Table 3.

The table contains two categories of good observations and two categories of what we term “bad” observations. The good observations originate from the fact that RBL is a teacher-driven initiative, shaped by continuous improvements over, so far, six years, and fueled by positive reactions from the school and department administrations. From the bad observations two things stand out: first, the low level of conscious strategic focus on pedagogical development and, second, the gradual recognition from the school management that RBL is innovative and valuable to the school’s competitive edge. This coincides with the increased importance of the “Bologna process” as well

Table 2
Observations of Educational Change in RBL

Presage	Process	Product
<ul style="list-style-type: none"> • appealing to students' curiosity • moment of surprise, calming students 	<ul style="list-style-type: none"> • stimulating the interest and curiosity of students • individual business ideas 	<ul style="list-style-type: none"> • knowledge about relations between concepts • integrative understanding of the integrative character of the subject matter
<ul style="list-style-type: none"> • forming student groups • connection to known concepts in everyday life such as allowance. 	<ul style="list-style-type: none"> • social media based communication • open house voluntary activities • making own inferences from courses to RBL • peer reviews • presentation orally and in writing focused on skills development • familiarity with office software such as word processor, spread sheets and presentation programs 	<ul style="list-style-type: none"> • productive results linked to own effort • entrepreneurial experience • self assurance for business • set of reference points to be used in consecutive courses • positive mindset to the subject matter

Table 3
Observations of Teaching Context

Professional Development Activities (-)	Low level of innovation Lack of coordination Very scarce attention to pedagogical development, predominantly staffing procedures
Feelings of Uncertainty (+)	Two initiating teachers around 40; younger part of faculty however with plenty of experience from working with practitioners as well as students Some scepticism among faculty colleagues Much positive attention from school direction and from articles in daily papers
Teacher Participation in Decision Making (+)	Enthusiastic attitude of continuous improvements High degree of individual freedom in teaching Positive feedback from students
Transformational Leadership (-) to (+)	Department of Business Administration: lack of pedagogical strategy, haphazard initiatives School of Economics and Management: skills orientation for business students Weak incentives for reform or development

as quality assessments, in which skills are given dramatically higher status in education programs.

Alignment of Teaching Context and Educational Change

RBL runs the risk of being an island in a stream of traditional curricula, soon to be flooded. The main reason for that becomes obvious when looking at Tables 2 and 3. The teaching context is characterized in particular by the teacher involvement and attitude towards educational innovation, whereas school and departmental pedagogical strategy is more or less absent. This is also an explanation, we conclude, to the high level of freedom given to the RBL teachers.

When the two dimensions are observed together (Table 4), a number of areas susceptible to further development emerge. These can be found in the lack of teaching strategy and incentives at the departmental level and in the lack of well-communicated school vision at the school level.

Table 4 also illustrates the strong culture of teacher independence of the Department of Business Administration. The upshot is that there may be a trade-off between school vision/department strategy and teacher influence. However, the balance between those two factors could just as well be seen as a trait in real educational change. It seems haphazard, though, to rely on individual teachers' random initiatives in times of increasing competition in the market for business education.

Table 4
Areas of Improvement (*L.O.* = *Learning Outcomes*)

Educational Change	Process			Product		
	Presage	Active & deep	Passive & surface	Qualitative L.O.	Quantitative L.O.	Affective L.O.
Teaching Context	Student factors	Active & deep	Passive & surface	Qualitative L.O.	Quantitative L.O.	Affective L.O.
Professional development activities	X	X		X		X
Feelings of uncertainty						
Teacher participation in decision-making						
Transformational leadership	X	X		X		X

Conclusion

Our experience from the RBL concept is that student-oriented activities and a mix of different activities stimulate students into focusing on deep learning. The RBL experiences we have presented thus support previous research conducted by Ramsden (1992), Biggs (2003), and Dart and Clarke (1991). Our experiences also show support for the idea of constructive alignment and communication of course objectives to the students as discussed by Biggs (2003) and others.

The development of this course has been a valuable experience for us as teachers involved in the process. We have learned a lot from the process. The course started out as an experiment in order to see if we could, by introducing new methods for teaching as well as communicating with students, increase their interest for and understanding of the subject of business administration. Judging by the work the students hand in by the end of the semester we have to a large extent succeeded in doing so.

We do not see that the implementation of these activities only can be done within the subject of business administration. On the contrary, we believe that the activities we have presented here also can be used at other universities and within other disciplines as a way to increase student involvement and motivation and to connect the theoretical aspects of a subject to hands-on problems. The important thing is to find that practical problem or project to which these activities can be connected.

When considering the introduction of new teaching methods it should be clear that change does not happen over night. It takes time. The RBL course in its current shape is the result of a gradual development over three years. During the first semester we had regular meetings where we discussed the experiences and assessed the new methods. Based upon these assessments and the experiences we gained by implementing the new teaching methods, we have as a

second step been able to further develop the course and its content from one semester to another. One example of this is that the first semester that the course was held, all student groups worked with the same product, which was the product that was voted the most popular product idea during the first day. What we learned from the first semester was that using the same product for all groups was not motivating the students enough, since they did not have their own project. As a consequence, we improved the course and the following semester we allowed the student groups to come up with and pursue their own ideas.

Important to remember when introducing new teaching methods—and the lesson we have learned from taking part in this process—is that you can not expect everything to run smoothly from day one and that it is not a problem if it doesn't. Instead, what is important is to try to improve our teaching and to let the changes take time and to learn from mistakes being made. The only way we can improve our teaching methods and increasing the quality of the education we offer to our students is by recognizing teacher development as an ongoing process.

Our intentions are therefore to continue to develop the RBL course and the concept. One thing that we have identified as a necessary improvement is to develop a collaboration between us teachers and the teachers on the other courses that are given the same semester. The whole purpose of the RBL course is to tie the theoretical courses to practical problems. Without a stronger connection between the RBL course and the other courses we believe that there is a risk that this purpose of the course will be forfeited.

The framework we have used, in which we made a straightforward operationalization of the teaching context, shows how important the teaching context is to educational change. The framework has revealed the pros and cons of the RBL initiative and we also conclude that our framework, albeit in need of further development, could be useful in both ex-ante design and ex-post evaluation of courses.

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