Experiment in the application of problem-based learning to a translation course

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Tässä artikkelissa tarkoituksenani on osoittaa, että ongelmalähtöistä opetusta (PBL) voidaan soveltaa käännöskursseilla käännösanalyysin ja tiedonhaun työkaluna, jolloin PBL-menetelmän avulla teoria ja kirjallisuus linkittyvät luontevasti käytännön kääntämiseen. PBL tarjoaa selkeän työjärjestyksen seitsemine askelineen käännöstoimeksiantojen ja käännettävien tekstien pohjalta tehtäville ryhmäkeskusteluille, joissa toimeksiantoa analysoidaan kääntäjäopiskelijoiden tarpeista käsin. Artikkeli pohjautuu kahdella Helsingin yliopiston käännöstieteen laitoksen käännöskursseilla tekemiini opetuskokeiluihin, joissa opetus perustui ongelmalähtöiseen opetukseen. Kokeiluista ensimmäiseen osallistui kuusi toisen vuoden opiskelijaa ja toiseen kokeiluun yhdeksän ensimmäisen vuoden opiskelijaa. Kyselyn avulla opiskelijoilta kerätty kirjallinen palaute oli positiivista. Palautteessa esille nousi ennen kaikkea muilta opiskelijoilta saatujen uusien näkökulmien saaminen ja teorian yhdistyminen käytäntöön.

Keywords: ongelmalähtöinen oppiminen, opetusmenetelmä, kääntäminen

1 Introduction

The description of the scholarship of teaching that "is about improving student learning by investigating the learning of one's own students and one's own teaching how to support students to succeed in their studies" (Trigwell, Martin, Benjamin & Prosser 2000: 159) has been the starting point for two teaching experiments with problem-based learning on translation courses that will be reported in this article. In recent years, scholars have emphasized the relevance of the constructivist learning theory with a student-oriented approach to learning and teaching in higher education. According to constructivists, the student is seen as an active builder of knowledge, which results in a deep learning and better learning outcomes with conceptual change instead of a teacher-oriented learning approach which focuses on information transmission (e.g. Trigwell, Prosser & Waterhouse 1999). Problem-based learning (PBL) is a learning method that provides a tool for creating the conceptual change with student-oriented approach. In this method, students solve a challenging problem through defining their own objectives for learning, and the problem solving process facilitates several desirable attributes, such as teamwork and critical evaluation of literature.

In this article, I intend to show how problem-based learning works as a tool for translation task analysis, including text analysis, and furthermore, for linking theory to practical translating on translation courses. I discuss opportunities and challenges for teaching with problem-based learning method observed on two experiments in which my aim was to test the application of PBL in practical translation courses from Swedish into Finnish. In the next section, I will take a look at PBL as a learning method and present the work structure with its seven steps.

2 PBL as a learning method

The problem-based learning method that was introduced in the 1960s for the purpose of medical studies in North America (e.g. Savin-Baden 2001: 4), offers several advantages. Firstly, it allows with relative ease the integration of practical translating into scientific literature and therefore into a wider theoretical frame of reference. Secondly, PBL creates a framework for translation task analysis that includes text analysis for the translator's purpose, and hence, every unique translation task with complex translation problems may be seen as a meaningful whole, since the new information is reconciled with previous experiences. Characterised by Boud and Feletti (2001: 2), the method creates better learning outcomes by:

- using stimulus material to help students discuss an important problem, question or issue;
- presenting the problem as a simulation of professional practice or a 'real life' situation;
- appropriately guiding students' critical thinking and providing limited resources to help them learn from defining and attempting to resolve the given problem;
- having students work cooperatively as a group, exploring information in and out of class, with access to a tutor (not necessarily a subject specialist) who knows the problem well and can facilitate the group's learning process; getting students to identify their own learning need and appropriate use of available resources;
- reapplying this new knowledge to the original problem and evaluating their learning processes.

Savin-Baden (2001: 5) points out that PBL "can help students to *learn with complexity*, to see that there are no straightforward answers to problem scenarios, but that learning and life takes place in contexts, contexts which affect the kinds of solutions that are available and possible" (Savin-Baden's emphasis). Focus in PBL is on a learning process with transferable skills. As Savin-Baden (ibid.) sums up the benefits, "students are offered opportunities -- to explore a wide range of information, to link the learning with

their own need as learners and to develop independence in enquiry". In other words, students are responsible for their own learning outcomes. The problem solving process follows a structured working order consisting of seven steps, all of them crucial for a successful learning process:

1) Get acquainted with the stimulus material presented by a tutor who may be a teacher or some other person with relevant competence of the topic. The stimulus material is a written description, videotape, picture, or something else realistic and problematic.

2) Define the problem(s) explicitly and precisely. Before defining, students discuss the problem on the basis of prior knowledge and experiences of the related issues. Dissimilar or even controversial angles are welcome at this point.

3) Brainstorm: suggest a wide range of possible hypotheses for solutions to the problem.

4) Analyse more critically the hypotheses and organize them to larger wholes.

5) Pose questions students need to know more about in order to be able to solve the problem.

6) Seek information. The goal is to find answers to questions formulated together in the study group by students.

7) Share the new knowledge with other students and to define if the problem is solved or not and also reflect whether the learning goals have been achieved. (E.g. Engel 2001; Lindblom-Ylänne 2003.)

A new kind of pedagogical thinking is required in PBL: the teacher moves aside and lets students have the floor and the conversation grow from their needs. The tutor's guidance should be thoughtful and tactful without leading the problem solving too much. In PBL sessions, tutor's ability to confront and quickly respond to spontaneous situations and questions raised by students without interrupting the learning process is crucial for the quality of learning. Student's activation increases, compared to teacher-oriented learning approach, since in PBL they are considered as experts of their previous knowing and points of view, which results in increased motivation. Hence, heterogeneity in the student group is seen as a pertinent resource. As Hartman, Everson, Tobias and Gourgey (1996: 227), who have studied ethnic differences between self-concept and metacognition, put it, "students may benefit from adopting approaches and attitudes different of their own".

An important role in the learning process is with affective factors (Snow, Corno & Jackson 1996; Vermunt 1996; Vermunt and Verloop 1999). In a new learning situation

with a new method and with demand of a change of orientation of learning, students are vulnerable to negative emotions, such as uncertainty, stress and helplessness (see Vermunt & Verloop 1999: 262 on emotions). Since the cognitive capacity to deal with concrete things is higher than with abstract phenomena (Halverson 2003), PBL contributes to diminish these emotions by offering students concrete and realistic tasks. Coping with feelings requires skills of metacognitive regulation. The term refers to "exerting control over one's own cognitive and affective processing of subject matter", including planning a learning process, adjusting to change the original plan when required, and reflecting the final learning outcomes (Verloop & Vermunt 1999: 262). Das, Naglieri and Kirby (1994: 84) highlight the relationship between metacognition and motivation and find that strategies only become effective when combined with a purpose and a need. PBL gives students this kind of purpose, namely an explicit problem. Researchers (see e.g. Hartman et al. 1996) have pointed out the influence of good self-reflection and metacognitive skills on effective learning outcomes. PBL combines team work with other students and under the guidance of a tutor to offer an opportunity to improve these skills more effectively than when working independently.

An aspect related to metacognition is students' conception of knowledge which can change during the learning process (Lindblom-Ylänne & Lonka 1999: 2). Poikela and Poikela (2005: 9–10) suggest an integrative model of knowledge consisting of theory, praxis and experience, including highly personal elements of tacit knowledge. PBL takes advantage of different types of knowledge, inclusive tacit knowing that becomes explicit during the problem solving. Toom (2006) uses the term *instrumental knowledge*, discussed previously by Niiniluoto (1996: 53), in order to describe the relationship between means and goals in class teacher's action. Similarly, the term 'instrumental knowledge' can be applied in translator's work. In fact, one of my aims in applying the PBL method is to improve students' instrumental knowledge when striving towards a finished professional translation, in other words to know which theoretical and practical tools they have at their disposal. In working life, translators need the competence to take part to team work. Besides sufficient language skills, the diversity of cultures and personalities, it is required social competence and ability to adapt to even incoherent and uncertain circumstances (Savin-Baden 2001). A certain amount of automaticity in

translation is needed, of course, but skills to be able to estimate information and working models critically and explain one's own solutions to others are of high importance, as well. In the following section, I will concentrate on my application of PBL for translators.

3 Applying PBL in translation courses

There are several applications of PBL. It may be argued that my approach is not pure PBL but more problem solving learning. Although, I consider it as PBL for two reasons: firstly, because students follow the working order consisting of the seven steps, and secondly, because they define the problems by themselves, out of their needs and experiences (cf. case-based methods, see e.g. Lindblom-Ylänne & Iivanainen 2003). Furthermore, students are allowed and also encouraged to solve a complex problem in a variety of ways instead of finding one solution expected by the teacher and linking the solution to current course contents (Savin-Baden 2001: 3). This chapter focuses on the practical application of PBL in two translation courses from Swedish into Finnish. In the first part of this chapter I explain my way to apply the method with seven steps and reflections from the teacher's point of view (3.1). The latter part deals with the feedback collected from students through a written questionnaire (3.2).

3.1 PBL from teacher's point of view

The first experiment was performed during the course "Translation and translation analysis from Swedish into Finnish" for second year students at the University of Helsinki, Department of Translation Studies, between autumn 2006 and spring 2007, the group consisting of six Finnish-speaking second-year students. The teaching language in the course was Swedish. The second group consisted of nine first-year students on the course "Translator's knowhow Swedish-Finnish", that is their first translation course, fulfilled between autumn 2008 and spring term 2009. The language on the course was Finnish, the mother tongue for eight of them, in order to encourage the new students to take more part in the conversation. The size of the groups was optimal: on the one hand, students in a small group may feel obligated to participate in the discussion and cannot

hide behind others. On the other hand, the group size was not too small, since together students could effectively produce enough suggestions for solutions.

During the translation courses, the groups got four to five texts to translate with the PBL method as a tool for text analysis. After the text analysis through PBL in groups, students were asked to translate the texts individually as homework. A lecture, held once a week, took 90 minutes of which PBL took 45–60 minutes. The rest of the time was spent on discussing the finished translations or other functions for the course, e.g. a lecture on translation theory, aiming at supporting the problem solving. The steps 1–5 were taken during one lecture, after which the students had a week for self-studies (step 6). The results of self-studies (step 7) were discussed in the next lecture.

Stimulus material consisted of a source text and a brief description of the translation task, including information about medium, length, aim of the translation, target text readers, and deadline. In addition to the texts to be translated, one PBL task, explained explicitly in a written description, was to solve which one of the two texts, one in Finnish and one in Swedish, was a translation and why. Compared to teacher-oriented teaching method during translation task and text analysis, the most significant difference was that the problems were not formulated explicitly by the teacher, but they were instead created by students themselves arising from the translation tasks and texts, based on what they experienced as problematic and interesting in a certain text or translation task.

The seven steps seemed easy to follow for students. The clarity in the students' working, created by the steps, is fundamental for effective working and the students' feeling of security during the course. In my application of PBL, the teacher was the tutor who was the available expert in case of dead ends or other problems during the steps. The tutor's function is above all to act as a guide, whose primary aim is to offer a frame of reference, both an external learning environment with time-table and other practical issues, and internal learning environment, including especially supporting action during the conversation. Tutor acted as chairman, but students took turns in being secretary who wrote on a white board according to other students utterances.

There were four columns on white board: (1) Facts in problem description/translation task/text", "(2) Problem(s)", "(3) Hypotheses and connections" and "(4) Questions to answer". The secretary's job on the white board makes students' thoughts explicit and makes sure that students have understood the topic similarly. The first column was filled during step one (getting acquainted with the facts), the second column during step two (discussion based on previous knowledge and experiences), the third column during steps three and four (brainstorming and critical assessing of the hypotheses), and the last column during step five (common goals for individual studying before next meeting). The post of secretary was a demanding task, since the secretary needed often to ask the group to express the thought more explicitly or precisely.

One practical advantage in this particular application of the PBL method is that each student got their own, clearly formulated question to answer to by the next meeting the following week. Often, the questions were chosen by students themselves. A clear question for each student stresses the importance of every student's contribution to the learning outcomes by making them become experts on minor issues, and therefore also motivates them. The literature to be read was chosen by the student. However, the tutor's assistance was required in searching for relevant information.

Generally, passive students and students that do not attend every meeting are problematic. In PBL sessions this may endanger the whole learning process for the whole group, but it may be partly avoided by emphasizing at the beginning of the course the importance of activation in the learning outcomes of the whole group and perhaps also on the grade for the course. According to Trigwell et al. (1999: 58), teacher "assesses to reveal conceptual change". This raises the following questions: To what extend to assess activation, how fundamental is it to assess conceptual change and finally, how is it possible to assess. In case a student is not able to attend the meeting, students may be asked to write a short note of their findings and give it to tutor before the meeting or immediately after the meeting, which pinpoints collegial cooperation with responsibility, similar to the real-world working environment. In PBL, the assessment of learning outcomes needs to be revised. As Poikela and Poikela (2005: 14) put it:

> Today, students are seen as subjects, not only in learning processes, but in assessment processes, too. This insight highlights the most important difference between traditional learning conceptions and problem-based learning.

In addition, the assessment ought to be in line with transparent goals set for the course. This means that the object for assessment is the process that is one of the most important learning tasks for students: to learn to cope with varying processes. In my PBL experiments, students were assessed according to their finished translations, which was based on the assumption that the effective learning through PBL results in conceptual change and in a good translation. Nevertheless, there is, at least in principle, also a possibility that the learning process produces a conceptual change but it is still difficult for the student to transmit the change to practice.

This section has shown in what way PBL creates natural possibilities for students with less life experience to feel confident since there are no absolutely right answers and since they can prepare before step seven, the final solution. During PBL, students were more activated to discuss than in my previous courses with a more teacher-oriented approach to learning. Compared to a teacher-oriented approach, PBL also leaves remarkably more room for students to practice expressing themselves in a foreign language. Although, in the beginning of the course, students need to be instructed explicitly in what the PBL with multiple goals is as a learning method, how it differs from other methods, what the tutor's role is and, finally, what is expected from the students as active, responsible learners. Clearly, their engagement with the PBL method most likely increases if they understand the value of questioning things.

3.2 Student feedback

After the PBL tasks were accomplished, feedback from students was collected anonymously through a questionnaire in both courses. The questionnaire was structured with open ended questions (Appendix 1) in order to obtain reliable information about students' genuine thoughts and feelings concerning experiences during the particular course and PBL as a learning method. The feedback questionnaire showed that students were satisfied with the PBL method. The most frequent, in 13 questionnaires out of the

total of 15 answers, positive aspect was their appreciation of learning to see things from different points of view, as we see in comments such as "you got a whole new kind of point of view that you would not have thought otherwise" (translations of the comments are mine).

Another remarkable aspect emphasized in feedback was linking theory to practice. This is somewhat surprising, since Kivilehto (2005) has found linking theory to practice difficult in her PBL experiment in a translation course. In my courses, students had free hands to seek relevant information; occasionally the tutor gave hints or recommendations for reading. The comment "I needed to wade through books which otherwise would not have happened" is pretty realistic to describe the positive effect on reading scientific literature caused by the PBL method. Still, one student wished that literature could be read in the lectures, since "at home you do not necessarily read them (i.e. books) so carefully". This utterance pinpoints the relevance of motivation, and also the importance of instructions: In PBL, the purpose is to seek *relevant* information, not to read everything carefully. More examples of positive comments are appreciation "to learn to see texts critically", and satisfaction to have different translation tasks and texts with a variety of problematic aspects. Students were pleased with use of lecture time.

However, the lack of negative or critical comments is obvious. Reasons for this may be that students actually were pleased with the method or that they for some reason did not feel themselves free to express critical viewpoints in the feedback questionnaire. Namely, the feedback was collected before the course was completed. One student pointed out the difficulty of being a secretary, and another stated that "it was nice to feel free to express thoughts in Finnish when needed", that is to use their mother tongue. The tutor's action was criticized for occasionally leading the conversation more than required, even if the tutor was also described as a person who "gave advice when needed" and who gave hints in cases of dead ends. To sum up, on the basis of comments presented above, students seemed to have adjusted surprisingly well to facing new demands, not solely for substance of the course but also for the learning method.

4 Discussion

My primary aim with the two experiments of applying problem-based learning was to test how PBL can be utilized as a tool for translation task analysis. After the fulfilled experiments, it can be stated that the method is suitable for this purpose, in spite of the lack of support for the method at institutional level. The second aim with the experiments was to provide better means for linking theory to practice. Advantages with the PBL method were to get students read more about translation studies and relate scientific literature to practical, complex real-world contexts in order to develop the practical and reasoning skills needed in the field of translation. Students obviously benefit from adopting approaches and points of views different from their own, which was shown in the feedback questionnaires that also showed the appreciation of literature reading. A critical aspect in the students' contribution to the learning process is the foreign language, Swedish, that was used in lectures in the first course with second-year students, which naturally demands greater effort to express one's thoughts. Therefore, the tutor's role as encourager to clarify ideas in a foreign language is essential, whose most important function is to create the learning environment but stay mostly out of the PBL conversation during the steps. Consequently, it is motivated that instead of tutor, the role of chairman is taken by a student, which is compatible with the idea of PBL to support students' independence in working. The post of secretary was challenging for students, but still unavoidable for making tacit knowledge explicit and ideas concrete for other students.

Assessing learning outcomes in translation courses, that is both conceptual change and practical translation skills, requires new assessment criteria that take into account both aspects: process and result. One solution is to have a two-part assessment, in which one measures process and the other result. It is possible to assess PBL conversation and evaluate for example participation, cooperation with other students and quality of proposals for solving the problem with reasoning. However, an assessment during the PBL discussion may impact the conversation negatively, especially during the initial phase of group working together by causing extra pressure on students who are

confronting the demands of the PBL method for the first time. The students may also be asked to conduct self-assessment or peer evaluation.

The positive answers in the questionnaire are encouraging, but the questionnaire did not, however, reveal anything about the students' conception of learning or metacognitive skills, which would be interesting to study in the future. More attention needs to be aimed at coming up with new, challenging PBL tasks for the purpose of translation courses. Hence, there is at the moment a considerable need for research and empirical studies of applying PBL in translation teaching and learning. In addition, more practical experiments need to be undertaken in order to develop coherent courses based on PBL tasks. Studies would support individual teachers in their complex task to process more qualified learning outcomes for students without forgetting the joy of learning process which is a major advantage of PBL: the joy of discovery.

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Appendix 1: Questions in feedback questionnaire

- Problem-based learning (PBL) in a translation course. General comments, e.g. was it suitable for the course?
- Were the instructions sufficient? If not, what would you have wished more instructions about?
- Tasks, problems: praiseworthy issues and issues to perfect?
- Was the use of time on the PBL lectures good? Please, explain shortly. How was it regarding the course as whole?
- How were the PBL tasks linked to the translation task (cf. theory and practice)?
- Teacher's tutoring during the conversations? Praiseworthy issues and issues to perfect?
- What was the most important thing I learned during the PBL tasks?
- What would I have wanted to learn more about?
- What is a good PBL task alike? And what it should not be alike?
- Other comments, praiseworthy issues or issues to perfect?