

PROBLEM-BASED LEARNING IN THE ACADEMIC SETTING: LANGUAGE TEACHING ISSUES

Ligija Kaminskienė¹, Aušra Janulienė²

¹Mykolas Romeris University, Ateities g. 20, LT-08303 Vilnius

E-mail: ligija@mruni.lt

²Vilnius University, Universiteto g. 5, LT-01122 Vilnius

E-mail: ausra.januliene@uki.vu.lt

The paper deals with case study as the key method for problem-based learning. The authors present the case study types, transferable competencies and skills that are achieved through case studies and introduce language-related issues in interdisciplinary teaching. The difficulties that a language teacher may face are grouped in the learning sequence and some practical teaching/learning tips are suggested.

Keywords: problem-based learning, case study method, English for Specific Purposes (ESP), facilitating.

Introduction

Most educators agree that one of the essential goals of education is the development of students who are effective problem solvers for the knowledge society. A hallmark of an educated person is the capacity to reflect on and learn from experience in such a way that the learning yields meaningful interpretations of life occurrences and informs future action (Marienau 1999: 135). The distinction between problem-based learning and other forms of cooperative or active learning often are blurred because they share certain common features and hybrid approaches abound as instructors adapt methods for particular situations. However, an essential component of problem-based learning is that content is introduced in the context of complex real-world problems. In other words, the problem comes first (Bound 1985, 1991; Woods 1985: 19–42). This contrasts with prevalent teaching strategies where the concepts, presented in a lecture format, precede “end-of-the-chapter” problems. In prob-

blem-based learning, students working in small groups must identify what they know, and more importantly, what they don’t know and must learn (learning issues) to solve a problem. These are prerequisites for understanding the problem and making decisions required by the problem. The nature of the problems precludes simple answers. Students must go beyond their textbooks to pursue knowledge in other resources in between their group meetings. The primary role of the instructor is to facilitate group process and learning, not to provide easy answers. With the change in format come different forms of assessment such as group examinations.

Problem-based Learning and Case Study Method

Problem-based learning encourages students to take charge of their education. It emphasizes

critical thinking skills, understanding, learning how to learn, and working cooperatively with others. While problem-based learning is well known in medical education, business and law, it is almost unknown in the undergraduate curriculum for multitudes of other subjects.

The paper seeks to introduce the most popular method of problem-based learning which is more and more widely applied in the academic setting, namely, the case study method. It is presented with the view of, though not necessarily, an interdisciplinary context of management studies and the English Language for Specific Purposes (ESP), as applied at the Mykolas Romeris University, Vilnius. As it will appear later, the case study method is always problem-directed, though not always problem-driven.

Case study method develops students who can:

- Assess the setting from the point of view of the strengths and weaknesses of the given case for a potential problem solving;
- Clearly define a problem;
- Develop alternative hypotheses;
- Access, evaluate, and utilize data from a variety of sources;
- Alter hypotheses given new information
- Develop clearly stated solutions that fit the problem and its inherent conditions, based upon information and clearly explicated reasoning.

Students with such ingrained skills are well prepared for occupations which rarely have a supervisor who has time, inclination, or knowledge to tell the worker what to do. They are also well prepared for the overwhelming amount of unprocessed information that is so intimidating for the beginner, but reflects the reality of knowledge society.

Case study method, as one of the most powerful tools in a university classroom, has the capacity of creating “virtual reality” of life and provoking high level of involvement in the interpretation of the reality. Prof. Roger Schmenner of IMD and Indiana University states: “A case to me is the description of a real situation with a

protagonist who has to decide something. The data in the case are likely to be incomplete, as data often are in the real world, and available in sometimes staggering quantity. In that way it mirrors the real world.” (Schmenner 2003: 6). In a case study environment, students act as professionals and confront problems as they occur - with fuzzy edges, insufficient information, and a need to determine the best solution possible by a given date.

The case study may require the learner to work individually or in a group situation and may expect the learner to assume a particular role such as a consultant, marketing director, manager or, in a law case, a counsellor for prosecution/defense, plaintiff, judge, etc. In an ESP language classroom, the list of roles may be extended beyond academic and professional boundaries, as cases are basically problem analysis and decision-making exercises. Therefore, cases offer the student the possibility to show analytical ability, critical and reflective thinking, application of theory learnt in other courses, persuasiveness and specific skills of communication in the presentation of a solution.

Types of cases

Cases are written by authors or academics and printed or published on-line. For instance, the European Case Clearing House (ECCH) is a resource centre for business management cases in Europe, with more than 6,600 on-line inspection copies available in 2003. Increasingly, they are also presented in other formats such as film, video tape, CD, audio tape, disk, or a combination of these. In academic settings, cases may be presented in oral form, e.g. as part of an academic project or dispute. In that instance, the boundaries between a case and a problem may become blurred, especially if the factual inventory is not sufficiently developed, and it is up to the presenter whether s/he prefers to emphasize the analysis of that particular *case* (and problems related to it), or a *problem* deriving from

it. In terms of case writing techniques, there are several types of case studies, which, according to O'Rourke (O'Rourke 2001) fall into three different types of case studies: field cases, library cases and armchair cases.

Field Cases: real cases written by instructors in collaboration with managers (lawyers, etc.) who work in companies and who experience the problem or situation described first hand. A case researcher visits an organization and collects the data that comprise the case. Moreover, someone in the organization signs an official release document. It is this release that truly distinguishes cases from any other kind of educational material. The release serves four purposes: first, it guarantees that the case writer has in fact gone to the field and done the work required to write someone else's story; second, it authenticates the story. A signed release says that the situation is accurately and fairly portrayed. The case has the advantage of being very comprehensive and complete and full of real information, which is not normally disclosed to the public. The major disadvantage of such a case study is that it can become outdated quickly.

Library cases (also called *public record cases*): semi-fictional cases produced with information available from libraries and other publicly accessible media. One might question the validity of the information available for public consumption, but the case writer has a wide range of sources and can therefore cross reference to ensure that the situation depicted is based on real events.

Armchair cases: fictional documents about companies, which describe situations and events which do not exist and which have never occurred. While they may resemble real events, they often lack the richness of detail but are very useful, as they introduce basic (extralinguistic) concepts to business/law/language students and provoke discussion. A real advantage of such cases is that they can be updated at will without prior permission from companies (or legal institutions). As a rule, they are used to offer the student a simplified version of a more complex event.

The majority of case studies available to ESP teacher tend to be armchair cases, but within this category we can identify different types of case studies. In an article outlining possible case study methodologies, Daly (Daly 2002) divides the different cases into three categories:

A. Simulations with prescribed roles

The first category is very directive and rather limited in its application as the learner has only the information provided in the role to work on. However, for very specific language or communication skill practice such as telephoning skills, such cases can be very useful.

B. Mini-case studies

The second case study type seems to be linked to a specific topic, such as criminal law, finance or globalization and is the culmination of a plethora of exercises on business vocabulary and usage.

C. Interactive case studies

The third category can be divided into those different distinct types of case studies, those that are communication skill specific and work on a particular skill and those that are more open to interpretation by the instructor. The latter are not always armchair cases and some are based on real companies, or law cases, or real life situations and events.

Developing transferable competencies and skills through case study method

Mauffette-Leenders et al. (Mauffette-Leenders 1999) point out a rich inventory of skills that can be developed by the case method. In *Learning with Cases* the authors address students of business management and point out those transferable skills and competencies that have been identified by numerous authors as needed for effective workplace participation in a learning society (Sinclair 1999; Sajienė 2005; Palinauskaitė 2001).

Analytical skills. The case method enables you to develop qualitative and quantitative frameworks to analyze business situations, inclu-

ding problem identification skills; data handling skills; and critical thinking skills. You are forced to reason clearly and logically in sifting carefully through the data available.

Decision making skills. The case method pushes you, on the basis of your analytical work, to assess what can be done and to make decisions. You will learn to generate different alternatives, to select decision criteria, to evaluate alternatives, to choose the best one, to formulate congruent action and implementation plans.

Application skills. Cases provide an opportunity for you to practice using the tools, techniques, and theories you have learned.

Oral communication skills. The case method provides ample opportunity not only to listen to your colleagues but also to express yourself, construct arguments and convince them of your views. Thus, a whole set of speaking, listening and debating skills are developed. In this exchange of ideas and arguments, you learn to think on your feet, consider others' viewpoints as well as to take and defend your positions.

Time management skills. Under the heavy pressure of case preparation and the juggling of your various other responsibilities, you are forced to schedule educational activities carefully and manage time effectively.

Interpersonal or social skills. The case method, through small group and large group discussion, promotes learning how to deal with your peers. This learning includes conflict resolution skills and practicing the art of compromise. Because so much of your future work life will involve committees, task forces, boards or project teams, learning to work effectively in a group will differentiate you.

Creative skills. Because no two business solutions are quite the same, the case method encourages looking for and finding solutions geared to the unique circumstances of each case. This method invites you also to use your imagination in problem solving, as there are normally multiple solutions to each case.

Written communication skills. Through regular and effective note-taking, case reports

and case exams, you learn the skills associated with effective writing. Emphasis on writing skills varies depending on the program you are enrolled in but often takes on a high priority in business programs, as it is a key factor of success in management.

Teacher's role in an ESP case study class

Much has been written on the case study method (Mauffette-Leenders 1999; Barnes 1994; Erskine 1981) but very little has been written on how to help the an English teacher exploit this method in class. Peter Daly in his report on case study method in business English language teaching (Daly 2003) pointed out some general guidelines on how to tackle a case.

1. read the case thoroughly,
2. note the important facts,
3. identify the problem,
4. specify an objective for the managers involved,
5. identify the critical issues,
6. consider underlying assumptions,
7. list and select possible solutions,
8. decide on the best solution,
9. explain how to communicate the solution,
10. write up the solution.

The guidelines can be applied for the majority of cases in *Business Class* by David Cotton and Sue Robbins (Daly 2003), an excellent Business English textbook with a collection of library and armchair cases, as well as many other ESP textbooks.

While these ten points may seem self evident to some, the instructors must decide how they fit within their teaching methodology. Should the critical issues of the case study be identified in a group in plenary session or should the students decide outside the classroom during the preparation stage? Does the instructor work with the students through all points up to and including point eight or just read the case in class? Even though there are better ways of

facilitating a case study, the instructor must ultimately decide on their pedagogy based on the class objectives and how the study is incorporated into the curriculum.

One of the key differences between a General English class and an ESP case study class is that the ESP teacher is not the sole authority figure. The ESP teacher must share the limelight with his/her students as the learners bring their considerable expertise to the classroom. The teachers must re-evaluate their role when teaching cases and focus on how to facilitate the learning process rather than being purveyor of knowledge in a highly didactic, teacher-centered environment. This of course is not an easy adjustment especially for those teachers that are only familiar with the expository method of teaching. However, teachers cannot use the case study method without questioning their teaching pedagogy and methodology. This shift, as Daly (Daly 2003) points out, will involve awareness of other factors such as:

- a) the issue of power in the classroom – moving from an unequal power structure of teacher/student to a more equal facilitator/learner;
- b) not intervening too quickly when the student is struggling as it is this struggle that leads to learning;
- c) getting the learner to share the burden of learning which is not always easy if the learner is not used to a learner-centered approach to learning and teaching (which seems to be the case in the Lithuanian education system which is highly instructivist in secondary school);
- d) allowing the learner to talk, interact, experience the knowledge in the case study by abandoning the idea that if, as a teacher, you are not talking, you are not teaching
- e) allowing the learner to shape the classroom discourse;
- f) encouraging collaborative learning by designing a teaching methodology which is constructivist in nature;

g) maximizing social and psychological interaction with the language and the communication skill being taught;

h) attending to effect in the classroom by ensuring that the student is at ease with the material, the objectives and the required outcome.

Thus case study method seems to be an excellent way of expanding the boundaries of a classroom. However, oftentimes when asked to teach with cases, the teacher doesn't know what s/he is supposed to do. In an ESP course, the communication skill is one of three important elements in the case study analysis, the other two being the content and the language used. This triad – content, communication skill and language usage may pose problems for English language teachers as they may only feel competent to deal with language proficiency and shy away from the communication skill and content elements. There is therefore a need to prepare the language teacher so that s/he can get the most out of the case study method.

The shift from teaching to facilitating may involve problems which have no ready-made answers. Having applied the case study method in an ESP classroom (Kaminskienė 2002) the authors have encountered a number of problems that may fall into the following clusters:

- The grouping of students for a case-study. It is not clear yet whether the group should be heterogeneous in their capacities or, on the contrary, should be academically balanced in terms of their previous academic achievements (language and communication skills, IT skills, knowledge of the specific subject); heterogeneous groups proved to be more “real life – like”, though shyer and weaker students tend to be over-dominated by the stronger and more confident. On the other hand, if the students are grouped according to their academic achievement and type and personalities, some teams may spend considerably more time on the problem than others, which

does not contribute to their confidence building and motivation.

- Introducing the case-study method as a student-centered method. No matter how clear the syllabus is, the students may not be prepared for extra load of library/field study and shared team work. Students may tend to interpret it as the teacher's reluctance to teach them. The legitimate concern of the students might be the question how the teacher is going to assess their individual progress. Learner training and discussing the rationale behind student centered teaching helped. The assessment issue should also be discussed with the students, the first attempts may not be assessed at all or student self- assessment employed.
- Preparation for case-study seminars. The case studies involve a lot of preparatory reading for problem solving. It may happen that students do not pre-read for the class, or do not grasp the "learning issue", since the teacher does not tell them what is important in the articles they have read. It is not realistic to expect that all the students come to all the lessons and all of them will have read, analyzed the materials and grasped the main things they will need for the work in class. We may not interfere in this case and let the students cope with ambiguity, time pressure, and stress, as this is a real life situation: very often we have to join other people in problem solving and decision making processes not from the very beginning expecting help from the rest of the team. On the other hand, we found in-class preparation effective as well. As it is time consuming because of the scope of information, all students do not read all the material, each member of the team gets acquainted with different aspects of the problem ("jigsaw" reading); then they are expected to share their findings with the rest of the group. It ensures maximum

student involvement and responsibility. To maximize it even more, pieces of reading are given to students before they are split into groups, two or three students (depending on the number of future groups) are given the same portion of materials so that they could discuss **before** presenting it to others **what** was important in their bit, **how** they are going to present their aspect to others with different information, that is, they have a kind of rehearsal formulating the ideas which they will have to pass on to other people, which is very important for their confidence building.

- Discussion and presentation time. It may happen that the most communicative students do not attend all the discussion classes, as they do not find those necessary for their study of the case. Eventually, the best students happen to catch up on the latest events while in class again and disrupt the normal pace of the session. However, this may happen in their real professional life as well when some of the colleagues may find some problems not worth their attention at first and join the problem solving process later.
- Assessment. As it stresses thinking, conceptualization, communication and group processes, the usual multiple-choice test cannot be applied. The materials collected for the case-study call for as precise as possible definition of what students do not know, but need to know to understand the case. Thus in their essays the students may rank not only those factors that they have learnt about the case, but also those that they have missed. Also, the questions raised by the teacher may be of problematic character, involving the student's reasoning and personal judgment. However, grading such essay examinations is painful and time consuming, as one should know how to deal with peripheral misinformation or beautifully written wrong answers.

- Student evaluation. There is a chance that the overall student evaluation of the course will be lower than in the traditional classroom teaching format. The reasons for that may be some reluctance with which the students take responsibility for their own learning, or uncertainty about grading criteria. On the other hand, thorough learner training, discussions of the rationale help students to understand the benefits of problem-based learning and see it as a useful and productive learning activity preparing them for the realities of professional experience.

Conclusions

Problem-based learning is a way of bringing up professionals who are able to deal with crude information, trace the ingrained problems and find solutions, either with a team or on their own. An essential component of problem-based learning is that content is introduced in the context of complex real-world problems.

The widely used method in problem-based learning is *case study* method which implies the development of transferable skills, such as analytical skills, time, task and team management, decision-making and communication.

For a teacher, it also means a dramatic change in the classroom culture: the teaching and learning process acquires a new format (extra preparation time for classroom sessions; student-centred approach; self-driven learning, etc.) and a new content (problem-based study of authentic material; field study, if applicable; assessment of analytical problem-based skills rather than knowledge of the subject).

In the new situation students act as professionals and confront problems as they occur - with fuzzy edges, insufficient information, and a need to determine the best solution possible by a given date. This puts the teacher in a peer position where s/he is expected to bring in some contribution from the field in which s/he is the most knowledgeable.

Language teachers can exploit the case study method for specific language learning purposes, especially through role simulation, mini-case studies or interactive case studies. However, the method itself calls for a holistic approach which erases the limits between the subject matter and the language per se, thus the teacher becomes a facilitator of the process which in very general terms can be called building of transferable competencies.

References

- Barnes, L. B.; Christensen, C. R. and Hansen, A. J. 1994. *Teaching and the Case Study Method*, 3rd ed. Boston MA: Harvard Business School Press.
- Boud, D. (Ed.). 1985. *Problem-Based Learning for the Professions*, Sydney. HERDSA.
- Boud, D. and Feletti, G. (Eds.). 1991. *The Challenge of Problem-Based Learning*. London: Kogan Page.
- Cotton, D. & Robbins, S. 1996. *Business Class*. England: Pearson Education Limited.
- Daly, P. 2002. "Methodology for Using Case Studies", in *The Business English Language Classroom*, *Internet TESL Journal*, <http://iteslj.org/Techniques/Daly-CaseStudies/>.
- Daly, P. 2003. "The Case Study Method and Business English Language Teaching", in *Impact of Culture and Education on Learning Practices. 10th Annual EDiNEB Conference*, June 18–20, 2003. Program and Book of Abstracts. Salzburg.
- Erskine, J.; Leenders, M. R. & Mauffette-Leenders, L. A. 1981. *Teaching with Cases*, London, Ontario: School of Business, University of Western Ontario.
- Kaminskienė, L. 2002. "Dimensions of Empowerment", in *Developing Core Skills in Higher Education. Learner-Centered Universities for the New Millennium: Education Reform and Teacher Training. 27th International IUT conference*, July 1–4, 2002. Vilnius Pedagogical University, Vilnius.

Marienau, C. 1999. "Self-Assessment at Work: Outcomes of Adult Learners' Reflections on Practice". *Adult Education Quarterly*, Spring 1999, 49 (3): 135.

Mauffette-Leenders, L. A.; Erskine J. A.; Leenders M. R. 1999. *Learning with Cases*. London, Ontario: School of Business, University of Western Ontario.

O'Rourke, J. S. 2001. *Management Communication – a case-analysis approach*. New Jersey: Prentice Hall.

Palinauskaitė, A.; Pukelis, K. 2001. „Lietuvos profesijos pedagogų formalios pedagoginės kvalifikacijos ir realių pedagoginių kompetencijų tyrimas“, *Pedagogika* 51.

Sajienė, L.; Mačianskienė, N. 2005. "Changes in Adult Teachers' Professional Development", in *International Perspectives in Adult Education*. Adult Learning for Civil Society (Joggi, L., Przybylska E., Teresevičienė M. (Eds.), Issue No 51, Institute for International Cooperation of the German Adult Education Association (IIZ/DVV), Bonn-Kaunas-Warsaw.

Schmenner, R. 2003. "Thoughts on Case Teaching in Management Education", in *ECCHO (The Newsletter of the European Case Clearing House)*, Summer 2003, Issue No 30: 6.

Sinclair, K. E. 1999. "The Transition of Graduates from Universities to the Workplace" in Dunne E. (Ed.). *The Learning Society. International perspectives on core skills in higher education*. London: Kogan Page.

Woods, D. 1985. "Problem-based learning and problem-solving", in D. Boud (Ed.). *Problem-Based Learning for the Professions*, Sydney. HERDSA, 19–42.

PROBLEMŲ SPRENDIMO METODAS IR KALBOS MOKYMO KLAUSIMAI AUKŠTOJOJE MOKYKLOJE

Ligija Kaminskienė, Aušra Janulienė

Žinių visuomenės kontekste aukštosios mokyklos vis dažniau renkasi problemų sprendimu pagrįstą mokymąsi, kuris tam tikra prasme priešingas tradiciniam mokymui klasėje. Jo tikslas – priartinti akademinį pasaulį prie realių veiklos aplinkos problemų, ugdant transversaliuosius, su konkrečia darbo vieta ar užimama pozicija nesusijusius įgūdžius (angl.: transferable skills arba transferable competencies), kurie vėliau leistų absolventams sėkmingai konkuruoti darbo rinkoje. Jo esmė – savarankiškas darbas su neapdorota faktine medžiaga, siekiant apčiuopti, suformuluoti problemą ir, remiantis sukauptomis žiniomis apie vieną ar kitą (medicinos, verslo, teisės, socialinį) reiškinių, siūlyti galimus problemos sprendimo būdus. Problemų sprendimu pagrįsto mokymosi kartinis metodas – atvejų analizė.

Straipsnyje siekiama (1) supažindinti skaitytoją su dokumentais, kuriuos galima vadinti atvejais (situacijomis) bei su tokiais dokumentais susijusia (2) analizės metodika. Kartu straipsnyje keliamas klausimas, (3) ar sunku panaudoti atvejų analizę mokant anglų kalbos specialiesiems tikslams, t. y. netipinėje atvejų analizės aplinkoje, kur šalia faktų nagrinėjimo ir užduočių sprendimo pasireiškia tarpdalykinės kompetencijos sankirta – anglų kalbos dėstytojo kalbinė kompetencija, papildoma studento specialybės (ekonomikos, vadybos ir t. t.) žiniomis, o tai skatina ir dėstytoją, ir studentą pakeisti savo vaidmenį mokymosi procese ir pripažinti lygiavertės partnerystės principą.

Atvejų analizė per anglų kalbos pratybas gali būti atliekama bent trimis būdais: pasiskirstant vaidmenis pagal tam tikrą atvejį; nagrinėjant miniatvejus, kurie vėliau susiejami į vieną didelę temą, pvz., baudžiamosios teisės aspektai; dalyvaujant interaktyviose situacijose, kurių metu studentai sprendžia problemas ir kartu mokosi anglų kalbos tiesiogiai įmonėse ar nagrinėdami bylas teisės firmose. Tačiau tai toli gražu neišgelbsti dėstytojo nuo daugybės sunkumų, kurie jo laukia pradėjus analizuoti atvejį. Autorės pristato kai kurias problemas, su kuriomis dažniausiai susiduria atvejų analizės metodą pasirinkę dėstytojai, o ypač – užsienio kalbos dėstytojai, ir pateikia galimus būdus jas apeiti. Tarp tokių problemų paminėtume darbo grupių formavimą, krūvio paskirstymą grupėms ir žmonėms, savarankiško darbo problemas, vertinimo keblumus ir pažymio sąlygiškumą. Tačiau, įveikęs šias kliūtis, dėstytojas pasiekia daug daugiau, nei įprastame užsiėmime – jis žadina kūrybines studento galias, atsakomybę už mokymąsi ir jo rezultatus, sudaro galimybę džiaugtis ir didžiuliais realiais gyvenimo problemų sprendimais.

Reikšminiai žodžiai: problemomis grįstas mokymas (-is), atvejų analizė, anglų kalba specialiesiems tikslams (ESP), bendradarbiavimas.

Įteikta 2006-01-16; priimta 2006-02-22