

USING CASE STUDIES TO FACILITATE NAVAL STUDENTS' ACQUISITION OF ESP LEXICAL CONTENT AND ENHANCE THEIR COMMUNICATIVE SKILLS

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Abstract: This paper discusses the correlation of content-based language teaching materials focused on acquiring naval terminology (damage control and fire-fighting) with the use of real-life case studies to promote the development of students' oral and written communication skills. The case studies discussed herein are part of a larger set of teaching materials recently developed at "Mircea cel Batran" Naval Academy by the authors of this article. The case studies appear at the production stage of each topical unit and their main purpose is to allow students to productively employ the newly discussed specialized vocabulary in communicative contexts. The authors envisage that, by this approach, the transition from complex theoretical concepts to their practical application in real-life professional situations be facilitated, with an anticipated boost in learner motivation and interest. In addition to involving the students in collaborative learning that is likely to have a positive impact on their interpersonal and team-working skills, case studies focus on developing the students' critical thinking skills by presenting them with problem-based content-rich material which needs prior processing, sorting, prioritizing, etc. in order for the students to reach the final solution. The advantages of such a complex activity are multi-fold and will be explored at depth in the present paper.

Keywords: ESP, critical thinking skills, collaborative learning

I. Cases studies in ESP.

What are case studies? The case study method has been extensively used in tertiary education in such diverse fields of study as economics, law, engineering, etc. ever since the late 1980s. Claire Davies and Elisabeth Wilcock (2003) define case studies "as student-centered activities based on topics that demonstrate theoretical concepts in an applied setting" (Davies and Wilcock, 3). Another working definition is provided on "The Case Method Website: How to teach with Cases" of University of California where a case is described as "a narrative of an actual, or realistic, problem", while teaching with cases "involves a model of facilitating a discussion in which the students develop analyses of the situation, often through collaborative work, role playing, and intensive discussion, debate, and dialogue. (...) Case discussion is also seen as an exercise in building analytic bridges between theory and data." Thus, the real-life, practical examples provided by case studies allow students to contextualize the theoretical concepts presented in lectures and seminars.

When the case study method is employed in the teaching of specialized fields, the main teaching aims might envisage developing the students' professional knowledge and skills by

asking them to find solutions to or make decisions about unresolved, provocative issues after having conducted research and evaluated multiple sources of information. For instance, while conducting case studies, business students might hone their managerial skills by holding meetings, giving presentations, negotiating contractual terms, etc. Angelo, T. and J. Boehrer point out the fact that cases studies engage students with the course material, prompting them to “see it from an action perspective” which clearly boosts their motivation by making a clear connection between the classroom and the real-world professional context in which the students will eventually perform.

Since the teaching value of the case study method could obviously neither be denied nor ignored, it hasn't taken long for the field of language teaching to adopt this powerful teaching strategy to serve its own means. One branch of ELT in which case studies have been particularly successful is ESP. Why so? One reason could be that there is a significant amount of content-based instruction alongside language teaching in ESP. More precisely, case studies offer students access to materials abounding in specialized terminology, thus catering to their specific lexical requirements. Second, case studies successfully contextualize specialized vocabulary in a large variety of content input formats (official documents, professional correspondence, websites, blogs, vlogs, audio, video, pictorial material, graphs, maps, charts, plans, etc.) thus allowing students to develop their reading and listening comprehension skills. Third, case studies provide an excellent opportunity for students to use the newly researched and analyzed terms and concepts in oral and written communication in their own presentations, briefings, reports, etc.

Throughout the years, leading theoreticians of the case study method have put forth some of the most significant advantages offered by this teaching tool:

a) *Case studies facilitate the development of students' critical thinking skills and promote information literacy.* Case studies can be packed with information and students will have to condense this information into logical chunks and organise it so that a clear picture of the issue at hand can emerge.

Marty Linsky and John Boehrer (1990) show that, when doing case studies, students can benefit from inductive, experiential learning: “In their effort to find solutions and reach decisions through discussion, they sort out factual data, apply analytical tools, articulate issues, reflect on their relevant experience, and draw conclusions they can carry forward to new situations. In the process, they acquire substantive knowledge, develop analytic and collaborative skills, and gain in self-confidence and attention to detail.” (Boehrer and Linski, 42)

In fact, some of the higher level thinking processes that students might have to go through while doing a case study are identifying and listing poignant information, sorting/classifying data on categories, comparing and contrasting ideas, concepts, etc., analyzing and synthesizing data, hypothesizing on the outcome or impact of various courses of action, criticizing or evaluating courses of action, justifying decisions, etc.

C. Roland Christensen explains that in doing case studies students go through three phases of involvement: “At the first level, students explore a problem by sorting out relevant facts, developing logical conclusions, and presenting them to fellow students and the instructor.” (Christensen, 35) Then students may be asked to argue for specific actions from a certain character's point of view and finally, students clarify values by deciding what course of action they would opt for in a specific real world situation. As such, the emphasis is placed on the students' ability to reason and express themselves and on their capacity to structure the problem and work out a solution. A long-term benefit of such learning activities might be that they foster good judgment and definitive action. Moreover, because students fully apply themselves to the task and use active learning strategies to tackle it, it has been shown that they gain significantly

higher levels of understanding of the concepts discussed in the case studies and display higher rates of lexical and practical content retention.

Because cases studies are articulated on a variety of input types, students have to cope with processing different sources of data and are bound to develop information literacy in the process. Plus, if case studies are sequenced over a longer period of study time such as a semester or even an academic year, at some point, students can expect to become capable of transferring the information, the techniques and the concepts acquired from one case study to another.

b) *Case studies help student develop both comprehension and communication skills in English.* Even before processing and organizing the retrieved information, students are encouraged by the nature of the task to expand their repertoire of various reading strategies such as scanning and skimming (quick reading) or careful reading (intensive reading) all in view to retrieving factual information, main ideas, supporting details, the gist of texts, etc. Their ability to comprehend oral discourse is also enhanced due to their exposure to audio/video material. Needless to say, all the provided input contextualizes the target specialized vocabulary, thus, giving students multiple opportunities to encounter and engage it before they actively and productively use it when orally discussing and presenting cases as well as when writing case reports in English.

c) *Case studies allow students to perfect their interpersonal and team-work skills.* Case studies are activities based on collaborative learning. Students need to co-operate in order to solve the problem at hand. Thus, they need to learn how to distribute tasks, how to provide peer feedback and generally communicate in a manner which is conducive to the successful accomplishment of all the objectives of the case study activity. As Angelo and Boehrer intimate “much of the power of the learning comes from the study group and class interaction among the participants. Learning from each other as well as from their own experiences is one of the most valuable opportunities this interaction affords.” (Angelo, T and J. Boehrer) Case studies also grant students the opportunity to develop their key real-world professional skills such as time management skills as they need to schedule and pace their work effort in order to stay within task fulfilment parameters.

d) *Case studies involve the active participation of the students who are engaged in interactive learning.* Just as most ESP activities, case studies are essentially student-centered activities, both because they empower students by granting them decision-making prerogatives, and because they are tailor-made to cater to the specific linguistic and ESP content needs of their student population. According to Sivan et al, students can learn more effectively when they are actively involved in the learning process (Sivan et al, 2001). In fact it has been argued that active participation in the learning process maximizes content intake and retention. When doing case studies, students are not passive receivers of the assigned texts, on the contrary, they engage them, just as they engage their peers by raising questions, making statements, articulating an analysis, challenging working hypotheses. Golich et al state that conceptually, case teaching assumes that learning is more effective if students discover or construct knowledge with faculty guidance than if they sit passively and receive content (Golich et al, 3) Moreover, case studies involve a great amount of self-directed learning, as students are encouraged to take responsibility for their own learning process.

e) *Case studies increase student motivation and spark interest in the subject.* Case studies are articulated on a mix of affective and cognitive learning. Boehrer and Linsky argue that what draws students the most in a case is that it tells a story: “a good case presents an *interest-provoking issue* and promotes *empathy with the central characters*. It delineates their individual perspectives and personal circumstances well enough to enable students to understand the

characters' experience of the issue. The importance of the compelling issue and the empathetic character reflects the fact that cases typically focus on the intersection between organizational or situational dynamics and individual perception, judgment, and action." (Boehrer and Linsky, 45)

f) *Case studies expose students to real-life problems that they may have to confront when assuming their work positions.* Case studies "bridge the gap between theory and practice and between the academy and the workplace." (Barkley, Cross, and Major, 182)

II. The teaching and learning of naval English terminology with the help of case studies.

Naval English terminology is part of the English language training curriculum for the military students of "Mircea cel Batran" Naval Academy from Constanta. In order to maximize our students' specialized lexical intake, the authors of this paper have recently designed a complex set of teaching materials mainly focused on the teaching of ESP vocabulary pertaining to the topic of damage control and fire-fighting aboard naval ships, spread over the course of a semester. While our overall teaching approach has been that of practicing integrated skills, with a bias on teaching specialized vocabulary, we have decided to complement each unit in our set of materials with a case study reflective of the unit topic. Their main purpose is to allow students to actively employ the newly discussed specialized vocabulary in communicative contexts. The authors envisage that, by this approach, the transition from complex theoretical concepts to their practical application in real-life professional situations be facilitated, with an anticipated boost in learner motivation and interest. In the following section we will detail one such case study with the hope to impart some good practices ideas and inspire other language specialists to venture into the inclusion of the case study method in their teaching practice.

Case study: The 2008 fire on USS George Washington CVN-73

Objectives:

1. To review vocabulary describing:
 - the damage control central organization,
 - the duties of the at-sea fire party
 - classes of fire and extinguishing agents used in damage control.
 - methods used to prevent the spread of fires;
2. To identify and summarize in writing all factual information depicting the fire from the provided input;
3. To identify and classify in writing the main ideas and supporting details describing the causes of the fire according to the provided criteria;
4. To identify and summarize in writing the conclusions of the investigation;
5. To evaluate orally the conclusions of the investigation, justifying your opinion;
6. To discuss and synthesize orally the lessons learned from the incident
7. To present orally future preventive measures you would take and justify your opinion

Time: 3 x 60' sessions

Level of students: intermediate, B1+

Procedure:

Introducing the topic

Presentation Phase.

Students are divided into three smaller groups.

Students are shown pictures from the scene of the fire. The teacher can either print 3 sets of selected pictures to elicit the topic of the case study or, if logistics permit it, the teacher can take the students to a multimedia lab to access the photo coverage of the fire at:

<http://www.navsourc.org/archives/02/73f.htm>

Task1: The students work in groups and brainstorm on the event and its possible cause. They exchange ideas orally in plenary.

This is the time to review and reinforce vocabulary essential to the comprehension of the texts, if necessary.

Practice Phase

The students are distributed the following materials electronically via e-mail:

1. Video: News item “Cigarette Causes \$70M Fire on Aircraft Carrier”

https://www.youtube.com/watch?v=n1_IdwePg94 –

2. Military press coverage of the fire:

<https://www.stripes.com/news/report-says-fire-on-uss-george-washington-was-entirely-preventable-1.83949#.WRO-czeLmHs>

http://www.navy.mil/submit/display.asp?story_id=37696

http://www.navy.mil/submit/display.asp?story_id=38840

3. Naval damage control online lecture (fire event covered)

<https://prezi.com/ep27pvkm1lcv/dc-lecture-with-cole/>

4. Original investigation report posted in Freedom of Information Act Reading Room online

http://www.cpf.navy.mil/content/foia/washington/FOIA_GW_Investigation_CPF_2nd_endorsement.pdf

If the lesson takes place in a multimedia lab, then the students are assigned their group tasks and proceed to accessing the materials during the course of the session. If the session does not take place in a multimedia lab then the teacher prints out the materials, organizes them in 3 identical sets and hands them out to the groups. All groups receive the same materials. If watching the short news item is not possible in the classroom, then the teacher can assign it as a task for outside the classroom group work.

Group tasks:

Group 1

1. Read the materials. Orally discuss their connection to the pictures from the previous activity.

2. Identify and summarize in a written report all factual information depicting the fire events. Write no more than 300 words.

3. Based on the written report prepare an oral presentation depicting the fire events. Delegate a spokesperson for your group.

Group 2

1. Read the materials. Orally discuss their connection to the pictures from the previous activity.

2. Identify and classify in a written report the main ideas and supporting details describing the causes of the fire according to these criteria:

Senior leadership:

Crew:

Material:

Write no more than 300 words.

3. Based on the written report prepare an oral presentation describing the causes of the fire. Delegate a spokesperson for your group.

Group 3

1. Read the materials. Orally discuss their connection to the pictures from the previous activity.

2. Identify and summarize in a written report the conclusions of the investigation. Write no more than 300 words.

3. Based on the written report prepare an oral presentation describing the conclusions of the investigation. Delegate a spokesperson for your group.

Students take the rest of the first two sessions to complete their tasks. In the last part of the second session, groups deliver their presentations in plenary, followed by a short Q&A time.

Production Phase.

Values Clarification

All groups reunite during the third and last session. Students are asked to evaluate the conclusions of the investigation and the punitive measures taken as to their fairness and efficiency in the given context. Students express their opinions in plenary and justify them with arguments.

Groups separate once more and do the following tasks:

1. Discuss and synthesize orally the lessons learned from the incident. Delegate a spokesperson for your group.

2. Present orally future preventive measures your group would take and justify your opinion. Delegate a spokesperson for your group.

The teacher allows for some final interpellations among groups in plenary.

The teacher summarizes the ideas presented in class.

Groups are provided with peer-feedback forms and are encouraged to share their feedback inside their groups.

Finally the teacher concludes the session.

The present example of a case study aimed at reinforcing specialized vocabulary in addition to fostering critical thinking skills and encouraging oral and written communication a real-life professional communicative context.

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