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A glossary-based approach to ESP terminology acquisition

Abstract

Learning technical terminology is an important goal in ESP training. To this end, students adopt various approaches, one being reading texts which abound with technical words and phrases. However, students often do not have enough linguistic knowledge to understand specific terminology in a foreign language. In order to find the meaning of such terminology and acquire new vocabulary they use dictionaries and glossaries, yet they often lack the sufficient skills to use these and other suitable resources. The objective of this paper is to present the analysis of an activity which was implemented within the first and third year university-level business English courses at the Faculty of Economics and Business, University of Maribor. With this activity, students learn professional vocabulary by compiling bilingual lists of technical terms and their definitions/translations based on professional paper(s)/books in English from any field of economics and business.

The central idea behind this activity was to encourage the students' autonomous learning of technical terminology by reading technical literature and using various forms of dictionaries, glossaries and terminology databases. At the same time, the tasks are aimed at raising the students' awareness of the importance of assessing the appropriateness of the information these resources provide. The paper is divided into three sections. First, the rationale and implementation of the activity are presented. Second, the results of the analysis of the students' work are given and discussed in terms of the selection of professional papers and terminology, choice of definitions of terminology and their translations into Slovenian. In the conclusion, the focus shifts to the outcomes of the activity.

Keywords: reading, language for specific purposes, learner autonomy, terminology acquisition, bilingual dictionaries, glossaries, terminology databases.

1. Introduction

The instruction of languages for specific purposes comprises various language related occupational skills and competences of which lexical competence is just one. According to Knight (1994: 285), "vocabulary acquisition is considered by many to

be the single most important aspect of foreign language learning. Not only do the majority of students studying foreign languages cite vocabulary as their number one priority [...] but it is often considered a priority by teachers as well" (ibid: 285). At lower levels of language instruction, the students generally acquire vocabulary through course books and to some extent, this is also true for higher levels of language instruction, i.e. university-level foreign language courses where course books are supplemented by various kinds of authentic texts. A significant share of LSP courses at university-level are devoted to technical vocabulary acquisition since it is presupposed that enrolling students have a good general knowledge of a foreign language in terms of lexis and grammar; that is, they are considered to be independent users of a foreign language. However, most students lack a sound knowledge of specific terminology in the foreign language they will be required to use in their professional and/or academic careers.

Students may acquire the language of a specific occupation or field in a variety of ways. Undoubtedly, extensive reading of relevant material (i.e. various types of professional and scientific papers and books) greatly contributes to foreign language learning. Tumolo (2007: 480) discusses the role of reading in vocabulary knowledge by advocating the approaches put forward by Krashen (1981, 1982, 1989) and Brown (1994) concerning either indirect or direct language instruction. In his study, he proposes a combination of "direct and indirect instructions to assist the learners in their process of vocabulary learning, that is, a balance between implicit and explicit, indirect and direct, teaching procedures for learning a foreign language" (ibid: 480). Thus, language instruction in the classroom should be accompanied by individual work in the form of the reading of longer texts.

Students may learn a large proportion of specific profession-related vocabulary by reading texts with profession-related content; furthermore, by doing so they acquire vocabulary incidentally. Another fact which supports reading as an important activity for language acquisition is individual preference, as students may choose the material they find interesting and/or relevant for their studies, as well as appropriate for their level of language competence. Students who are less proficient in a foreign language may choose texts which include specific terminology, but are still not as demanding as the material selected by the more advanced students.

Looking at the process of vocabulary acquisition, Mohseni-Far (2007: 146) touches upon note-taking as one of the techniques and strategies for learning new words. According to him, after "getting information about a lexical unit, learners may take notes, in the form of vocabulary notebooks, vocabulary cards, or simply notes along the margins or between the lines (marginal glosses). Note-taking is one of the basic strategies often recommended by researchers in the field of vocabulary learning" (ibid: 146). Here, the issue arises of the students' ability to understand new vocabulary; they encounter a large number of new vocabulary items while reading longer and more complex texts. Usually, the reading of texts in a foreign language is accompanied by the use of bilingual or monolingual dictionaries. Although many resources are nowadays available in both printed and online forms, students often do not use them enough or do not know how to use them properly. Today's students frequently rely on the Internet as their principal source of information, even though it

is well established that not all online information is reliable. As a result, if students are not critical towards it, they may become easily misled. We believe that it is the task of the language teacher to present these pitfalls to the students, to raise their awareness in this respect and instruct them how to be critical towards such information.

One of the tasks of any language instructor is therefore to help his/her students learn how to use these resources effectively and appropriately. A number of authors have dealt with the appropriateness of either monolingual or bilingual dictionaries in language learning (e.g. Laufer and Hadar, 1997; Hulstijn, Hollander and Greidanus, 1996; Hunt and Beglar, 2005). Both types of dictionaries have advantages and disadvantages connected with the level of the students' language proficiency. Apart from these two types of dictionaries, bilingualized compromise dictionaries are growing in importance. "A bilingualized entry typically includes: L2 definitions, L2 sentences information or L1 synonyms of the headword. These hybrid and fused dictionaries essentially provide translations in addition to the good features of monolingual dictionaries. Using bilingualized dictionaries is more efficient than using separate bilingual and monolingual dictionaries, and they are more flexible because beginning and intermediate learners can rely on the L1 translation and advanced learners can concentrate more on L2 part of the entry" (Mohseni-Far, 2007: 144).

Bilingual instruction of specific profession-related vocabulary is, in our opinion, of great importance, as students need to be aware of how particular terminology is to be used in both L1 and L2 contexts. This is especially crucial in cases when differences between the two systems exist. For example, many concepts in the field of accounting are particular to individual national accounting systems and are not compatible internationally, not to mention the differences in legal systems (e.g. business and company law).

Another relatively important element of university-level language courses is autonomous learning, and at this level, students are expected to study a large proportion of material on their own. According to Benson (1997: 18) "greater autonomy is a legitimate goal of language education and [...] autonomous learning is more or less equivalent to effective learning" (ibid: 18). Furthermore, the Bologna concept encourages a high degree of student independence in knowledge acquisition. In her study on lifelong learning of languages with reference to the common European policy on language learning, Bocanegra Valle (2008) discusses the notions of lifelong learning, autonomous learning and the concept of raising language awareness through authentic texts within the context of an ESP course. Therefore, one of the goals of language instruction is to 'equip' the students with the knowledge to learn a foreign language for whatever purpose on their own, i.e. outside the classroom.

To recapitulate, the discussion so far has looked at the various factors which play an important role in successful language learning, particularly in specific profession-related terminology acquisition, i.e. the acquisition of new vocabulary while reading, the use and the appropriateness of dictionaries and glossaries to facilitate the

understanding of vocabulary and, consequently, the learning of a foreign language coupled with the idea of autonomous and lifelong learning.

Bearing these foundations in mind, we have developed an activity in the form of a written assignment (seminar paper) with the aim of achieving the goals connected with the acquisition of specific vocabulary. The primary goal was to help the students acquire a higher level of knowledge of specific subject-related terminology in a bilingual context, while the secondary goals, closely connected to the first, were to enhance learners' autonomy and vocabulary acquisition through independent extensive reading and the appropriate use of available resources (both in printed and online forms) within the bilingual (L2 and L1) framework of technical terminology instruction. The students were instructed to divide their seminar paper into three parts: the introduction, the core section and the comments. The purpose of the introduction was to help students focus on the reasons for selecting a particular text for independent extensive reading. The core section (i.e. the selection of lexical items with definitions and translations) was aimed at the actual learning of technical terminology in a bilingual context, and the students' comments after the completion of the core section of the activity served as reflection on the processes of autonomous learning of professional vocabulary in a bilingual context (for a detailed structure of the seminar paper see Appendix 1).

The entire activity was developed with the aim of testing:

- a) whether or not the students will have any problems in selecting their reading material;
- b) whether or not the students will have any problems in selecting business/economics vocabulary;
- c) whether the students will find it difficult to find suitable definitions for the selected business/economics vocabulary;
- d) to what extent the students will find it difficult to carry out the activity in a bilingual context;
- e) whether the students will consider the task beneficial, despite its difficulty, since it would enhance their autonomy in learning a foreign professional language.

2. METHODOLOGY

2.1 Test design

The purpose of the seminar paper was two-fold: it was designed to be carried out as individual work on the part of the students and to encourage them to reflect on their ability to process technical terminology in any of the areas of business English. The task was introduced as a part of the business English courses in the 1st and the 3rd year of study (the university programme). The students were permitted to write it

parallel to any other seminar paper within their programmes for which the reading of professional and scientific papers or books was required. Nevertheless, they could select the reading material for this paper separately from any other course. As regards the selection of reading material, the 1st year students were instructed to choose articles in the professional daily or weekly newspapers and magazines (e.g. The Economist, The Financial Times, The Business Week, The Wall Street Journal, etc.) or professional books and other professional and scientific papers in English. They were allowed to choose general business topics because the vast majority of these students had no prior knowledge of business and economics terminology, or their knowledge in the field was somewhat limited. They were also recommended to select topics which they would find interesting. On the other hand, the 3rd year students were told to choose their material from scientific papers or more comprehensive professional books and had to take into account their individual specialisations within economics and business studies. That is, the students of accounting, auditing and taxation were only permitted to choose texts on accounting, auditing and taxation, while the students of finance and banking had to choose the material on banking and finance, and so on. As the 3rd year students had, in general, a somewhat good knowledge of core business terminology, they were required to select less general business terminology.

As has already been mentioned, the students had to write a seminar paper to facilitate their learning of professional vocabulary. The structure of the activity reflected the main goals as presented in the introduction.

2.2 Test subjects

The seminar paper was assigned to the 1st year students of the Industrial Engineering university programme and the 3rd year students of the Economics and Business Sciences programme within the courses Business English 1 and Business English 3 in the winter semesters of the academic years 2008/2009 and 2009/2010. For the 1st year students, this was their first semester of studying business English; whereas, for the 3rd year students it was their fifth semester of business English instruction. Table 1 shows the distribution and the number of students who submitted their seminar papers. The data reflect the number of students enrolled.

ACADEMIC YEAR	YEAR OF STUDY / NUMBER OF STUDENTS	
	<i>1st year – Industrial Engineering</i>	<i>3rd year – Economics and Business Sciences</i>
2008/2009	44	23
2009/2010	23	46
TOTAL	67	69

Table 1: The number of students submitting the seminar papers per year of study and per academic year

2.3 Task procedure

The implementation of the students' task was divided into three stages. In the first stage, the students received detailed instructions at the beginning of the academic year (i.e. in October) concerning the requirements of the task. They were given two weeks to select the reading material and the business/economics vocabulary. In the second stage, the main and most important sources of information for the terminological section of the seminar paper, i.e. 'Selection of terminology', were presented and the students received the information on the available printed and online resources (monolingual and bilingual specialised economics and business dictionaries, glossaries and databases). We emphasised the use of 'Euroterm – Multilingual terminology database'¹ and a number of dictionaries available in the faculty's reference library. The students were also provided with a list of online glossaries and dictionaries (for a selection of these online resources see Appendix 2). The third stage was the students' individual execution of the task in which they had to find the appropriate definitions of their selected lexical items and translate them into Slovenian. The students were allowed to consult the lecturer if they encountered any difficulty in the selection stage. The time available for writing the seminar papers was 10 weeks; after that, the seminar papers had to be submitted for assessment.

2.4 Data collection

After the papers were collected, a qualitative and quantitative analysis of the execution of the task was carried out on the basis of the students' comments about the different stages of the activity and from the linguistic aspect of the translations of lexical items and their definitions.

As regards the students' comments, we looked at (1) the selection of texts, (2) the selection of lexical items, (3) the choice of definitions, (4) the translation (vocabulary and translation process) as well as (5) the observations concerning the students' personal achievements. Bearing in mind the aims of testing, we were mainly interested in establishing how the students approached the selection of reading material, their reasons for choosing particular texts and any difficulties they faced in the process. Concerning the selection of lexical items, we were interested in establishing on what grounds they chose individual lexical items and any difficulties this part of the task presented. The analysis of the students' choices of definitions concentrated mainly on the issues related to finding and selecting the appropriate definitions; whereas, the translation section of the task was assessed in terms of the issues related to finding and selecting appropriate Slovenian equivalents of the English words and phrases. Finally, we wanted to find out how the students felt about the task as such and what they gained from completing it.

¹ 'Euroterm – Multilingual terminology database' can be accessed at:
<http://evroterm.anyterm.info/index.php?jezik=angl>

The linguistic aspect of translation focused briefly on the selection of texts and the selection of resources combined with the correct choice of definitions and the appropriateness of translations. An analysis of the grammatical accuracy of translated definitions did not fall within the scope of this paper, as the students were neither language specialists nor students of English or translation studies. The focus was thus on the suitability of translated terminology and definitions from the point of view of their meaning.

3. Results

For the purpose of this contribution, we investigated the students' comments and their translations as defined in the section on data collection above. In total, 67 seminar papers submitted by 1st year students and 69 seminar papers submitted by the 3rd year students were analysed. All the results are presented from the quantitative and qualitative aspect. The qualitative aspect of the analysis is presented in the form of the actual students' comments.

3.1 Students' comments

3.1.1 Selection of texts

The first item under analysis was the selection of texts. Figure 1 shows the results related to the selection of materials.

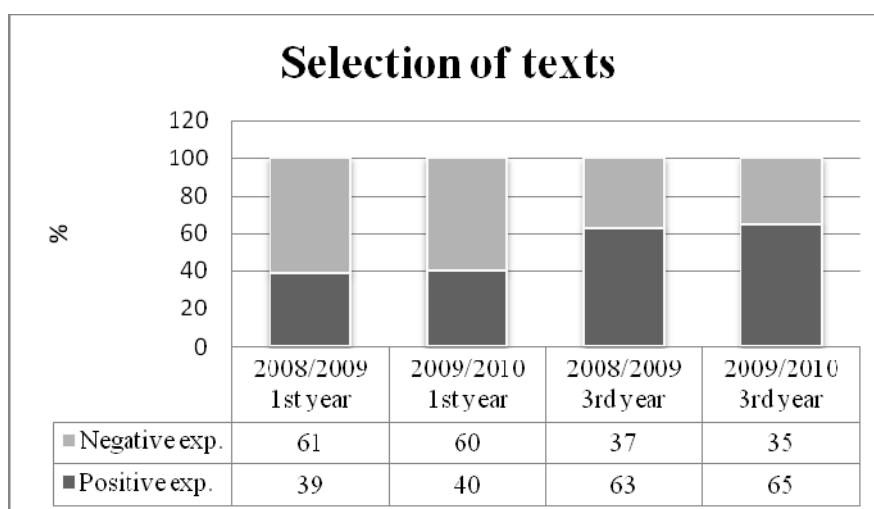


Figure 1: Selection of texts

It can be seen that 61% (in 2008/2009) and 60% (in 2009/2010) of the 1st year students found it difficult to choose the reading material. The analysis of the comments showed that the prevailing reasons were²:

- *looking for the articles was too time-consuming,*
- *the content of the contributions was too difficult for me to understand,*
- *the difficulty in selecting the topic, as too many articles from different fields of economics and business were available,*
- *the attractiveness of the content (the terminology was suitable but the content was not interesting),*
- *the difficulty in finding articles with enough economics-related terminology,*
- *the length of the contributions (sometimes the articles were too long), and*
- *the difficulty of selecting an interesting topic (I did not know what was interesting for me).*

In contrast, 39% (in 2008/2009) and 40% (in 2009/2010) of the 1st year students experienced no major difficulties in selecting the material for the analysis. According to them, they liked the fact that they could select the article on their own but mainly they selected the material because:

- *the content was interesting,*
- *the content was easy to understand,*
- *the title of the contribution was interesting, and*
- *the topic was new and unknown.*

On the other hand, 37% (in 2008/2009) and 35% (in 2009/2010) of the 3rd year students considered the selection of material to be a demanding task. A survey of their comments revealed that most of them had the same problems:

- *too much material was available, which presented a problem for me in selecting one for the seminar paper,*
- *there was a lack of difficult vocabulary items in the materials that were available.*

However, 63% (in 2008/2009) and 65% (in 2009/2010) of the 3rd year students had a positive experience regarding the selection of the material. This was mainly due to the following three reasons:

- *the materials I could choose was relevant,*
- *the material will be useful for my studies of other courses, and*
- *the materials will be useful for my future career.*

3.1.2 Selection of lexical items

The next item under analysis was the selection of lexical items. Figure 2 presents the results for all four groups of students. Again, we divided the answers according to the students' feedback (difficulties and positive experience).

² All the statements in italics in this section and in all further sections are the students' comments taken from their seminar papers.

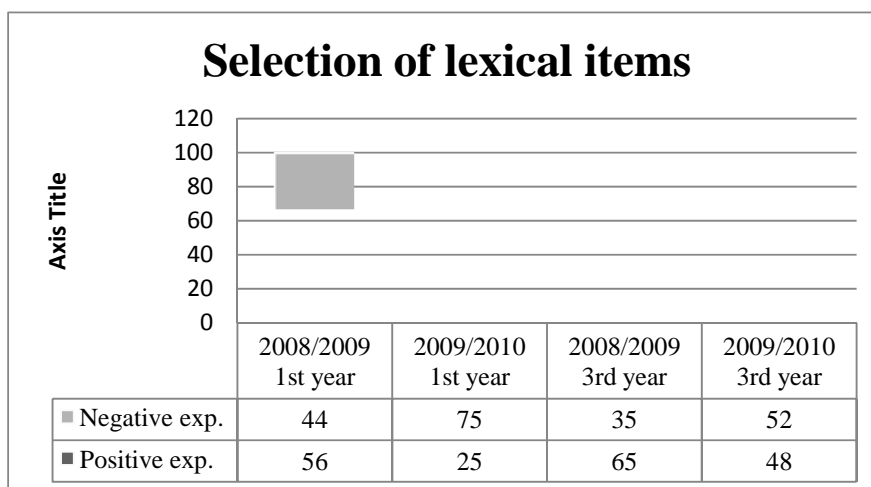


Figure 2: Selection of lexical items

The percentage of the 1st year students who found the selection of lexical items difficult was as follows: in 2008/2009, 44% of the students found this task demanding while in 2009/2010 this percentage was higher, i.e. 75% (two year average: 59.5%). According to the students, the main problems they experienced were related to:

- *the lack of knowledge of economics related terminology,*
- *the problem of finding difficult words,*
- *the problem of general understanding of content,*
- *the inability to distinguish between general and professional expressions, and*
- *the lack of the required number of lexical items in a text.*

On the other hand, 56% (in 2008/2009) and 25% (in 2009/2010) of the 1st year students reported no major difficulties in this part of the task (a two year average: 40.5%). Again, their reasons were more or less the same:

- *there was enough vocabulary to choose from in the material,*
- *the possibility to choose the words and phrases that were neither too difficult nor too easy, and*
- *the freedom to choose interesting vocabulary items.*

An average of 43.5% of the 3rd year students (i.e. 35% in 2008/2009 and 52% in 2009/2010) reported having difficulties in selecting the appropriate lexical items. The prevailing negative comments of both groups are given below:

- *the understanding of specialised terminology was difficult as such,*
- *the choice of terminology was difficult due to its abundance, and*
- *the choice of the vocabulary depended on the availability of definitions.*

More than half (i.e. 56.5%) of the 3rd year students (i.e. 65% in 2008/2009 and 48% in 2009/2010) had no difficulty in choosing the required fifteen lexical items for their seminar papers. They selected the lexical items based on:

- *the availability of terminology in the selected materials,*
- *the familiarity with the terminology in Slovenian (presented in other courses),*

- *the usefulness of terminology for writing the final thesis, and*
- *the applicability of terminology for further study and career.*

3.1.3 Choice of definitions

The distribution of the students' comments regarding the definitions to be included in the seminar paper is shown in Figure 3.

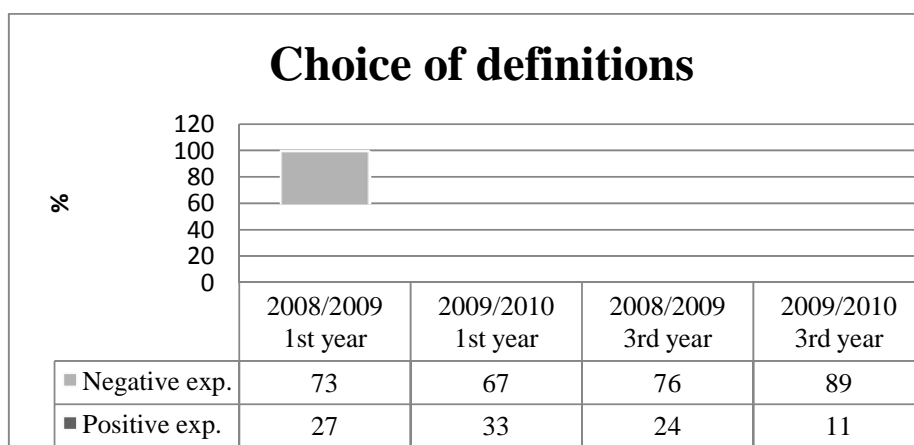


Figure 3: Choice of definitions

The results presented in Figure 3 show that the majority of students in all four groups reported some kind of difficulty in finding and selecting the appropriate definitions to include in their seminar papers. The analysis of the students' comments revealed that most of them reported mainly on the process of finding the definitions. An average of 70% of the 1st year students (i.e. 73% in 2008/2009 and 67% in 2009/2010) mentioned:

- *the difficulty in finding and choosing the appropriate definition among those available,*
- *the need to consult various resources was tiresome,*
- *the definitions found were too short for the required task,*
- *the search for definitions was time-consuming,*
- *the difficulty of defining some expressions,*
- *it was almost impossible to find all the definitions,*
- *the abundance of new/unknown words in definitions, and*
- *the lack of skills in searching for the definitions in dictionaries and online.*

Nevertheless, 27% of the 1st year students in 2008/2009 and 33% in 2009/2010 found the search for definitions unproblematic, providing the following reasons:

- *on-line dictionaries and glossaries were of use,*
- *sufficiently skilled in searching for relevant information on the Internet,*
- *good availability of online resources.*

The distribution of the answers of the two groups of 3rd year students indicates that the negative experience (i.e. difficulties) was common to as many as 82.5% of all 3rd year students (i.e. 76% in 2008/2009 and 89% in 2009/2010). According to them, this happened because:

- *comprehensive definitions as a prerequisite for the successful completion of the task were difficult to find,*
- *the differences in systems (i.e. subject-related notions) caused difficulties in finding appropriate definitions,*
- *the use of many different resources was required, which was time-consuming and difficult,*
- *the information on the Internet was not always entirely suitable,*
- *the selected terminology was very specific and its definitions were hard to find,*
- *the definitions found online were sometimes wrong,*
- *a good professional explanation of some terms was hard to find,*
- *there is a lack of good specialised dictionaries,*
- *the problems arose out of my insufficient knowledge of English.*

Less than one fifth (i.e. 17.5%) of the students in this category (i.e. 24% in 2008/2009 and 11% in 2009/2010) reported no major difficulties, commenting that finding the definitions was not as difficult as it had seemed.

Parallel to these findings, an analysis of the resources used was also conducted. It was established that, on average, 73% of the 1st year students predominantly consulted general monolingual online dictionaries (e.g. <http://www.ldoceonline.com>, www.dictionary.cambridge.org, www.yourdictionary.com) and, to a lesser extent (i.e. 23%), specific dictionaries and glossaries (e.g. <http://www.businessdictionary.com>, www.financial-dictionary.thefreedictionary.com, www.investorwords.com, www.investopedia.com, etc.) In contrast, the 3rd year students rarely used general monolingual dictionaries (i.e. 12% of them) as the source of their information; instead, they laid emphasis on the definitions found in specialised glossaries and dictionaries (i.e. 88% of all 3rd year students).

3.1.4 Translation (translating vocabulary and translation process)

Figure 4 presents the results of the students' comments regarding the translation element of the seminar paper.

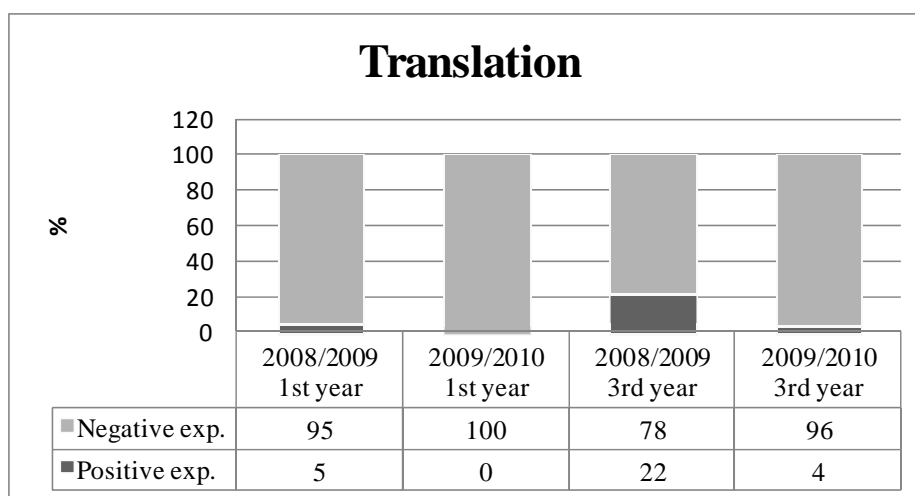


Figure 4: Translation (translating vocabulary and translation process)

Figure 4 demonstrates that, on average, 97.5% of the 1st year students (i.e. 95% in 2008/2009 and 100% in 2009/2010) considered the translation of lexical items and definitions as complicated. In their comments they discussed both the issues related to the translation of the vocabulary and the translation process in general. Their reasons why this task was so demanding are given below:

- *direct translation was required,*
- *it was difficult to find the translation of the entire phrase,*
- *consulting many resources was demanding and time-consuming,*
- *contrary to expectations, the task took longer to complete,*
- *finding the translations of specific terms was very hard, and*
- *it was difficult to choose the right word according to the context.*

The students who did not report any difficulties (only 2 students in 2008/2009) claimed that the translation did not present any serious problems.

Analysing the comments made by the 3rd year students, we can see that as many as 87% of the students in both academic years (i.e. 78% in 2008/2009 and 96% in 2009/2010) claimed that they faced a number of problems, including:

- *complicated definitions,*
- *impossibility of direct translation,*
- *difficulty in finding the translations of certain terms,*
- *a lot of other specific terms were 'hidden' within the definitions themselves, which made the translation even more difficult,*
- *sometimes the Slovenian translations of terms do not even exist,*
- *choosing the correct option among various ones was a problem,*
- *a general lack of good specialised bilingual dictionaries,*
- *different systems do not have corresponding terms,*
- *translating comprehensive definitions was very time-consuming,*
- *online translation tools were often unreliable, and*
- *the insufficient level of English knowledge.*

However, only 13% of the 3rd year students had no major difficulties with the translation stage of the seminar paper (i.e. 22% in 2008/2009 and 4% in 2009/2010). In their comments they stated that it was not as difficult as it had appeared at the beginning.

The analysis of the students' comments also revealed that a few of them made reference to online translation tools such as 'Google Translate' and 'Amebis Presis'³ although they had been clearly instructed to avoid any automatic translation tools.

3.1.5 Personal achievement

The last section of the students' comments was devoted to their personal achievements. Figure 5 presents the views of all groups of students.

³ 'Amebis Presis' is an online translation tool and can be accessed at:
<http://presis.amebis.si/prevajanje/?jezik=en>

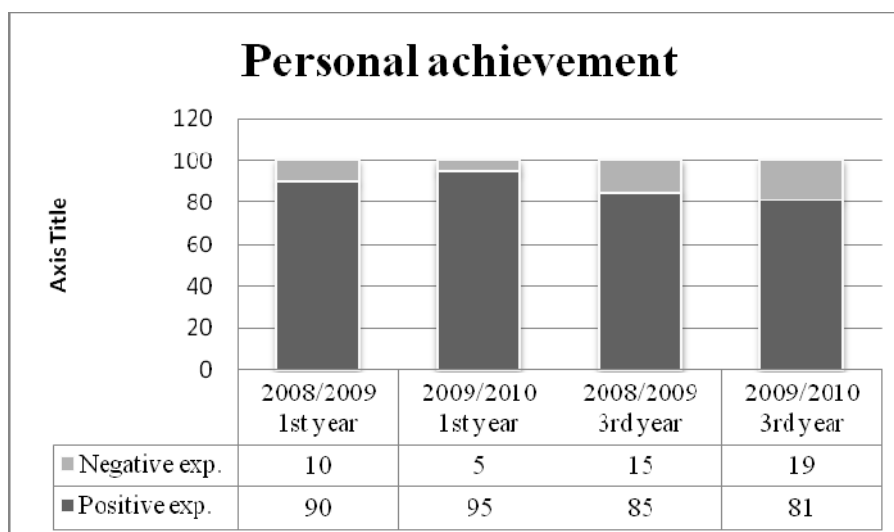


Figure 5: Personal achievement

The average percentage of 1st year students with a positive experience in both academic years was 92.5% (i.e. 90% in 2008/2009 and 95% in 2009/2010). They gave a wide range of reasons:

- *the seminar paper was an encouraging activity for learning professional terminology,*
- *apart from learning new vocabulary, my awareness of economics related topics was also raised,*
- *searching for definitions required a lot of reading, which was good,*
- *although it was a difficult task, it was interesting,*
- *my terminology research skills increased a lot,*
- *it was a good activity for the use of different resources,*
- *by searching for the explanation of specific terms, other economics-related terminology was acquired, and*
- *it was a good reading activity, which encouraged me to read more.*

On the other hand, 7.5% of the 1st year students (i.e. 10% in 2008/2009 and 5% in 2009/2010) considered this task to be demanding. They stated that this was because:

- *the level of my English was not sufficiently high, and*
- *I thought the task was going to be easy, but it turned out to be quite the opposite.*

Looking at the results obtained from the analysis of the 3rd year students' comments, we can see that as many as 83% of the students (i.e. 85% in 2008/2009 and 81% in 2009/2010) graded the activity as useful. Their comments are given below:

- *the acquisition of new terminology will be useful for my future career,*
- *the awareness of the difference between knowing the word only and explaining it was increased,*
- *a good activity for extensive reading,*
- *a good activity for learning how to research and translate specific terminology,*
- *my knowledge in a specific topic increased greatly,*

- *independent research and self-study are a very good way to learn something useful,*
- *the acquired knowledge will prove useful in other courses,*
- *learning vocabulary in context is better than learning it in an isolated way, and*
- *good practice in using dictionaries and glossaries.*

On average, 17% of the 3rd year students (i.e. 15% in 2008/2009 and 19% in 2009/2010) did not see the task as positive. They mentioned the following reasons in their comments:

- *my insufficient knowledge of English made the task extremely demanding,*
- *the task required far more time and effort than expected,*
- *the task was not as easy as I expected.*

3.2. Analysis of materials, definitions and translations

Parallel to the analysis of the students' comments about the task, we also briefly looked at the students' choice of reading materials, i.e. professional and scientific articles/papers/books, the choice of definitions and the translations of lexical items and definitions.

By examining 67 seminar papers submitted by the 1st year students, we found that all students selected their articles from the online versions of major newspapers and magazines in the field of economics. Figure 6 shows the selection of reading material by two groups of the 1st year students.

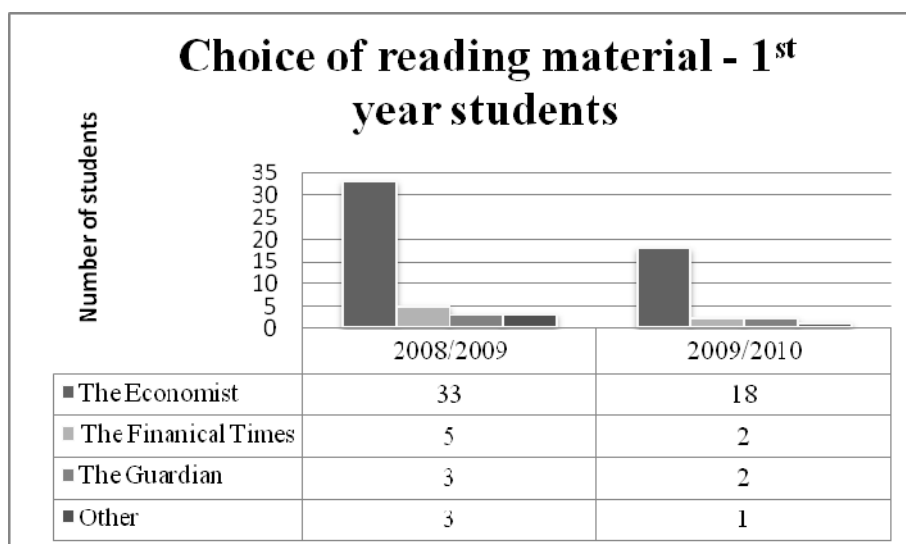


Figure 6: Choice of reading material

The same analysis could not be carried out for the 3rd year students as they were required to select more complex reading materials (i.e. professional and scientific papers or books). It can only be observed that an average of 94% of all 3rd year

students (i.e. 65 students in total) complied with the requirements of choosing either a professional or scientific article or a book as their reading material. Only 6% of them (i.e. 4 students) failed to comply with this requirement and selected general magazine articles with business or economics related contents. Out of the students who selected appropriate material, 89% chose professional or scientific papers, whilst 11% chose books.

Because the students were free to choose the business and economics related vocabulary on their own, we shall not deal with a detailed analysis of these choices in this contribution. It was only established that not all the students complied with the requirement of selecting technical terminology. In the two groups of 1st year students, approximately 34% of them included at least one word in their lists that can be classified as a general vocabulary item. Among the 3rd year students, this percentage was lower (i.e. 17%).

A brief analysis of the translations of lexical items ('entries') and their corresponding definitions into Slovenian concentrated mainly on the suitability of translated terminology. In general, we were able to divide the translations of terminology into two broad groups, i.e. the correct and incorrect. The incorrect translations could further be divided into those which were the result of a wrong interpretation of the context in which a word or a phrase occurred or, mostly in the case of phrases, the result of word-for-word translation. However, a more detailed analysis of these mistakes was not performed within the scope of this research. The percentages of correct/incorrect translations per year of study are given in Figure 7.

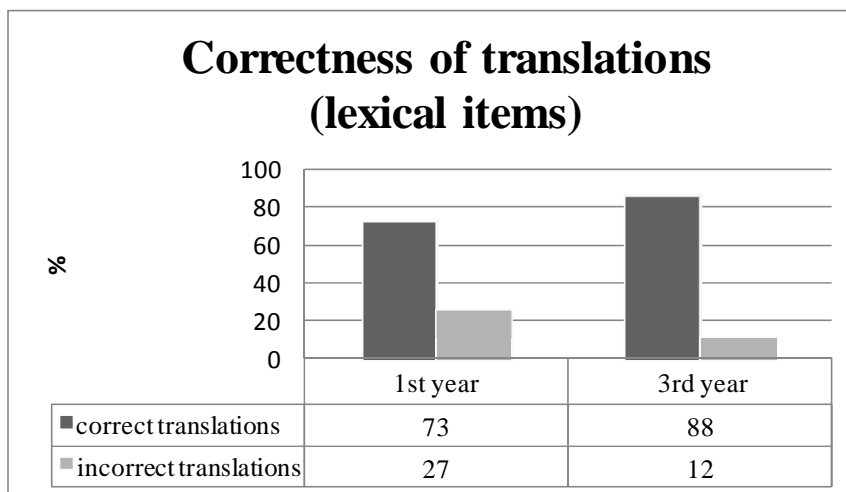


Figure 7: Correctness of translations (lexical items)

On average, 88% of the 3rd year students and 73% of the 1st year students (academic years 2008/2009 and 2009/2010 combined) managed to find the appropriate Slovenian equivalents of the lexical items in English. The 3rd year students exhibited a higher level of correctness in translating lexical items into Slovenian or finding the appropriate Slovenian equivalents.

A similar result was obtained when analysing the translated definitions. Apart from the word-for-word translation of phrases and the contextual inappropriateness of translation, the main feature of the translated definitions was that the students failed to translate the entire English definition or they simply found an alternative Slovenian definition. This occurred more frequently in the papers submitted by the 3rd year students (i.e. 22% of all 3rd year students in both academic years) than in those submitted by the 1st year students (i.e. 15% in both academic years).

4. Discussion

The results of the quantitative and qualitative analysis of the students' comments and a brief linguistic analysis of the translated lexical items and their definitions led us to some significant observations.

From the results obtained by analysing the students' comments about the contents and processes connected with this activity, it can be established that the difficulties experienced by the 1st year students in terms of material selection originate mainly in their lack of knowledge regarding business and economics related topics and business/economics terminology. Unfortunately, the task could not be carried out in the second or any other later semesters because the Business English 1 course in the Industrial Engineering programme is taught in only one semester in the first year of study. In contrast, the 3rd year students found it much easier to relate to the material for the seminar papers because they recognise the link between them and their usefulness for their study of business and economics topics and their future careers. Therefore, we can claim that the majority of 1st year students had problems in selecting the reading material while the 3rd year students did not.

Similarly, the choice of lexical items included in the seminar papers and the issues related to this process also heavily depended on the students' familiarity with the field of study. The results show that the 1st year students had quite a few problems in this respect. Contrary to that, the 3rd year students did not report any major difficulties. The majority of 1st year students had most problems with differentiating between technical terminology and general vocabulary as well as general difficulty in understanding the materials' contents. On the other hand, the majority of the 3rd year students based their selection of vocabulary on its applicability and usefulness. We believe that these differences are mainly the result of the students' familiarity with economics and business topics and related terminology. It has to be noted, however, that there is a significant difference between the two groups of the 1st year students and the two groups of the 3rd year students regarding the percentages of those students who had trouble in selecting the lexical items for translation. We believe that this statistical difference is the result of the number of submitted seminar papers per year of study in both academic years.

Finding adequate definitions and translating them presented more problems for both groups of students than anticipated. The results from all four groups of students show that finding a suitable definition for the selected lexical items was quite difficult. Comparing the results obtained from the seminar papers submitted by the 1st year students with the results obtained from the 3rd year students, we can establish that the 1st year students were less critical towards the vocabulary-related resources and looked for quick 'online' solutions for the definitions and translations of the selected lexical items more than the 3rd years. Although the 1st year students were permitted to include brief definitions in their seminar papers, the vast majority had problems finding them. The time spent on searching for the explanations of terms and the overall lack of command of English were among the prevalent reasons why the task was described as demanding. Of course, one has to bear in mind that they are considered to be beginners as regards business and economics vocabulary. In addition, only a few students were aware of the fact that not all the definitions they found online were suitable in terms of the context in which the selected lexical items occurred. The 3rd year students, on the other hand, were far more critical towards the available information and exhibited a higher level of awareness as regards the appropriateness of definitions, especially those found online. They were thus able to assess the suitability of the information given in these resources critically. Similar to previous observations, this is most likely due to their general understanding of economic concepts and a higher level of English knowledge in their fields of specialisation. The 3rd year students also exhibited the need to link the selected reading material with their study of economics.

Of all the stages of the activity, the students found the translation process the most difficult. The data obtained for this part of the activity point to the fact that most students found the translation extremely difficult. The analysis has revealed that some students did not know how to deal with the translations of words and phrases for which they could not find Slovenian equivalents. As regards the correctness of the translations, the prevalent reason for inappropriate translations was the word-for-word translation of individual phrases. These findings support the students' comments regarding the translation process in the activity; both the 1st year and the 3rd year students found it difficult to choose the correct translations when more options were available and many observed that there was a lack of good bilingual (English-Slovenian) resources. Despite the fact that the students were not allowed to use online translation tools, some 3rd year students reported using them. However, one very important realisation made by the students who used these tools was that they were not as reliable as they had expected.

In contrast to the prevailing opinion among students that the translation process was demanding, the overall impression about the usefulness of this seminar paper was unexpectedly good. Most students reported that the task was beneficial for their language acquisition, i.e. they saw it as a positive experience. We believe that the positive attitude towards the task and personal achievements reported by the majority of students contributes to an increased level of motivation for further individual study of technical terminology, which was one of the main goals of the activity.

5. Conclusions

Looking back at the rationale behind this approach and the results obtained from this study leads us to the following conclusions. The primary goal of the activity was to enhance the learning process of new vocabulary through extensive reading. Based on the analysis of the students' comments, we can see that the goal was achieved to a large degree as most students reported that the task helped them learn new words and phrases. Second, the activity was intended to encourage the students' autonomous learning in compliance with the Bologna concept. Since the completion of the task lasted approximately 10 weeks, during which the students had to carry out a great deal of independent work, we may claim that this objective was also achieved. The third aim was to sensitise the students in terms of the quality of information found in various types of resources. This aim was only partly achieved as quite a few students included information in their seminar papers which was inappropriate in terms of contextual use. As regards the framework of bilingual instruction of specific profession-related terminology, the task was successful to the extent that it made the students aware of the differences between different systems within specific fields of economics and business sciences.

Nonetheless, the results have shown that in future more emphasis should be placed on instructing the students in how to search for the correct Slovenian equivalents of English business and economics terminology in order to avoid the pitfalls of word-for-word translation. Furthermore, the students' awareness of the complexity of the ESP and of the appropriate context of technical terminology use should be enhanced. Further studies into the process of how the students actually choose the vocabulary definitions would be of interest.

Summing up, one of the main advantages of the approach discussed in this paper is therefore the fact that the students were actively engaged in vocabulary acquisition rather than mere passive receivers of language input. The execution of the task was also facilitated by the abundance of business and economics terminology resources in the English language. Of course, the suitability of this approach should be tested in other LSP courses and other languages as well. Furthermore, an investigation into any of the specific issues raised in this contribution (the processes related to the choice of material, the selection of vocabulary, the selection of definitions and translation) would be welcome.

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7. Appendices

Appendix 1

The structure of the seminar paper with instructions

1. Introduction

Write your reasons for selecting a particular text and briefly describe its contents. The introduction is limited to approximately 120 words. All comments must be written in English.

2. Selection of terminology

Choose at least 15 lexical items from the selected text (business/economics words or phrases). For each lexical item, provide the English definition as well as the Slovenian translation/equivalent of the lexical item and the translation of the English definition. You should translate the definitions on your own. Do not use any online translation tools. Length of definitions:

- a) 1st year students: you are allowed to write short definitions,
- b) 3rd year students: you must select more comprehensive definitions.

All definitions, lexical items and their translations, as well as contextual information, have to be properly cited. Standard organisation of each 'lexical entry' is shown below.

LEXICAL ITEM IN ENGLISH (word / phrase)

Definition of lexical item in English

Source: e.g. <http://www.....>

LEXICAL ITEM IN SLOVENIAN (word / phrase)

Translation of the lexical item's English definition in Slovenian

The context in which the lexical item was found (the sentence or the clause if the sentence is too long).

Source: e.g. <http://www.....>

3. Comment

After completing the seminar paper, comment on any difficulties and positive experience you had related to the completion of this paper. Write about:

- a) Selection of the text
- b) Selection of lexical items
- c) Choice of definitions
- d) Translations (translation of vocabulary and translation process as such)
- e) Personal achievement

The comment must be written in English in approximately 120 words.

4. Bibliography

Cite the source of the text, the sources of all the definitions and all the glossaries and dictionaries you consulted. Use the Chicago Manual of Style.

Appendix 2

A selection of online dictionaries and glossaries

<http://evroterm.gov.si/>

<http://europa.eu/eurovoc/>

<http://www.nytimes.com/library/financial/glossary/bfglosa.htm>

<http://www.imf.org/external/np/exr/glossary/index.asp>

<http://www.investopedia.com/dictionary/default.asp>

<http://www.investorwords.com/>

<http://businessdictionary.com>

<http://www.finance-glossary.com/>

<http://www.trading-glossary.com/>

<http://www.forbes.com/tools/glossary/index.jhtml>

<http://www.washingtonpost.com/wp-dyn/business/specials/glossary/index.html>

<http://www.oxfordadvancedlearnersdictionary.com>

<http://www.ldoceonline.com>

<http://www.thefreedictionary.com/>