English as the Lingua Franca of Engineering: The Morphosyntax of Academic Speech Events

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Abstract
English today is frequently used as an international means of communication among its non-native speakers from different L1 backgrounds. Research on English as a lingua franca (ELF) has already revealed commonalities and common processes from a variety of settings. It is important that research continues and that lingua franca usage in different environments is described to find ways to optimize communication.

This paper will focus on the morphosyntax of spoken ELF, reporting the results of a study that investigates spoken lingua franca English in tertiary education (engineering) in Sweden, where English is increasingly becoming the language of instruction. The morphosyntax of non-native-like usage is investigated in dialogic and monologic speech events. Cases of non-native-like usage are grouped as 'disturbing', i.e. causing comprehension problems and 'non-disturbing', i.e. causing no comprehension problems.

Findings from this corpus-based study show that the most consistent idiosyncrasies in lingua franca usage in this setting are observed in redundant features of the language and that there is very little disturbance, i.e. breakdown in communication. Engineers seem to opt for function and reciprocal intelligibility over redundant features of the language and accuracy when they speak English in academic contexts.

1. Introduction

English is now the overwhelmingly dominant language in academia since academic communities use English as the default language, and there is a consequent development towards an increase in English-medium teaching in Europe in general. European universities today are becoming increasingly bilingual. The number of programs offered in English has tripled in the last five years in Europe (Wächter and Maiworm, 2008: 31). Most countries have chosen to participate in the Bologna process, which has led to increased academic mobility and a number of student exchange programs. With visiting scholars and exchange students, European universities are becoming increasingly diverse linguistically.

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In such linguistically-diverse settings, English is used as a lingua franca (ELF), i.e. "a vehicular language spoken by people who do not share a native language" (Mauranen, 2003: 513). There are parts of academic communities in Europe now which operate predominantly in English, so English serves as a vehicular language through which speakers from different first language backgrounds communicate. The academic settings where English is used as a lingua franca are by nature international.

This paper investigates the use of spoken ELF by engineering students and lecturers in such a setting: a bilingual university where English is the vehicular language for speakers of a wide range of first languages.

2. Background: ELF research on spoken data

There has been a good deal of empirical work on ELF pragmatics, which has mainly dealt with the spoken mode (Mauranen, 2006: 146). Some of this work has been on pragmatic issues. To start with, Firth's seminal work based on data from business contexts must be mentioned (Firth, 1996). In his analysis of ELF telephone conversations between employees of companies in Denmark, he reports that despite frequent linguistic divergence from standard forms, the speakers "do interactional work" to achieve communication (Firth, 1996: 256). They do so by turn-taking, sequential relations and topic management and complete the task. The subjects in his study were good communicators with moderate English proficiency. Firth's work led way to more projects investigating non-standard English spoken by speakers of different first language backgrounds. One such study is an analysis of student dinner-table small-talk conversations which show that ELF users produce shorter turns and use minimal non-verbal communication devices (Meierkord, 2000). Another study investigated ELF use in international students' interactions in a meeting (Lesznyák, 2002); the results indicate that the students in these meetings were able to communicate in a pattern which at first seemed chaotic but then proved to be quite systematic. The students seemed to have developed a dynamic topic management skill, which enabled them, without much trouble, to find common ground. The results of another isolated study show that the ELF speakers use a special

variety of English which proved to be effective in informal conversations except for very few breakdowns in communication in the corpus (Hüllen, 1982). Data from the ELFA corpus, a corpus of English as an academic lingua franca, show that both economy and creativity are qualities that speakers of lingua franca English possess (Mauranen, 2004). ELF speech in business contexts seems to be characterized by interactional and pragmatic competence (Pietzl, 2005).

Some of the work on ELF has focused on linguistic forms. Jenkins's work on phonology is now well-known to those both in and outside the field (Jenkins, 2000). She focuses on phonology, because, she says, phonology is the area that creates the greatest number of intelligibility problems. Her work is based on years of data, partly recordings and partly field observation. Her description of L2 speech and assessment of which phonological features cause intelligibility problems and which do not, i.e. core and non-core areas respectively, has provided us with a description of the range of variation in comprehensible ELF speech. As Seidlhofer also mentions (Seidlhofer, 2001), Jenkins's work is ground-breaking because of the stand-point it has, that is, non-native-likeness is described as unproblematic and seen as acceptable variation. The VOICE (Vienna Oxford International Corpus of English) corpus is a large spoken corpus project led by Seidlhofer with recordings of about 1 million words of mainly European English from professional, educational and informal contexts. Projects based on this corpus have revealed valuable information on ELF contexts, predominantly with reference to lexico-grammar.

ELF still has not been described thoroughly as a language form (Mauranen, 2003) despite the growing number of studies in lexico-grammar. A relatively small part of the research has been text-oriented. Studies so far have focused mostly on the spread of English and the reasons and results of this spread. Several researchers earlier pointed to a need for research on the efficiency of ELF communication (House, 2003), the need to describe salient features and to develop descriptive work in general in ELF (Seidlhofer, 2004; Jenkins et al., 2002) as well as the need for description and codification on how it is used in European educational contexts (House, 2003; Seidlhofer, 2004). Significant developments have taken place in the last five years, and there is now some systematic effort to record what is going on linguistically in ELF situations, especially as a result of the corpus work and growing numbers

of ongoing PhD work. Still, more research is needed on academic speech events, the description of which is likely to provide us with crucial information about English-medium higher education.

3. Academic speech and ELF

Few studies have focused on linguistic aspects of spoken academic discourse, and even fewer on ELF in spoken university registers. As Mauranen very rightly points out, research on academic English has focused on writing rather than speaking (Mauranen, 2006: 146). When it comes to academic speech, work started with the compilation of important corpora. The MICASE corpus is a well-known spoken language corpus of approximately 1.8 million words recorded at the University of Michigan, in Ann Arbor, Michigan (Simpson et al., 2002). Although the compilation of the MICASE corpus and its availability has resulted in numerous publications and research projects, it has not provided an insight as to what is going on in ELF contexts since it is based only on a North American academic context and mostly native speakers, making up 88% of the corpus in total. The BASE corpus is a record of British spoken academic discourse with audio and video files available on request. Developed at the Universities of Warwick and Reading, it too is based on native speaker speech. The T2K-SWAL, also based on North American academic contexts, was compiled to determine whether the listening and reading tests in exams mirror what goes on in academic contexts.[1] However, it is not an open corpus – unlike MICASE and BASE – i.e. it is not available to researchers, most probably because of its testing-oriented focus.

A multilingual university is by nature different than a monolingual setting simply because speakers operate both in their first languages and the language of instruction. Linguistic variability is an essential characteristic of such settings. The speakers' first languages along with other operative languages make the speech events in bilingual academic settings differ substantially from monolingual ones. The ELFA (English

[1] http://www.ets.org/

as a Lingua Franca in Academic Settings) corpus work from Finland is the largest work on ELF usage in academic contexts and is very influential. It supplies authentic data from naturally-occurring speech events, and these are crucially high-stakes academic events, i.e. not from language-teaching contexts or set-up tasks for research purposes. The high-stakes issue is important because it ensures that speakers actually want to achieve the communicative goal set for the context.

One of the claims of ELF research is that the features of ELF are relatively similar regardless of the setting. It is important to extend ELFA beyond the boundaries of Finland. The present study aims to complement ELFA by examining ELF usage in a different high-stakes setting.

4. The setting, data, subjects and methods

The present study focuses primarily on form and investigates the morphosyntax of spoken English as the academic language in Sweden, which is one of the leading countries when it comes to English-medium tuition in continental Europe. There were 123 reported English-taught programs in Sweden in 2007 (Wächter and Maiworm, 2008: 24), which makes the country number four on the list of the leading countries as providers of English-medium tuition (Wächter and Maiworm, 2008: 29).

The investigation reported on here was carried out at a leading technical university, a major provider of the country's technical research and education. In its 'policy of internationalization' report from 2007, 'communicating effectively in English' is mentioned as an absolute requirement. English is used extensively in this setting, to allow for academic mobility of students and scholars and to prepare students for the global job market among other reasons. As a consequence, there is a large number of exchange students and foreign scholars in this setting who speak English to communicate with each other. Across Europe, the subject area in which English-taught programs are most-frequently offered is engineering with 27 % (Wächter and Maiworn, 2008: 12); this trend can be observed in the present setting. English is the language of instruction in the later years of many programs, and it is the only language of instruction in international Master's programs and higher levels. Doctoral theses are almost only written in English.

The data used for the present paper comprise student group-work and lectures from twelve different departments,[2] totaling up to 70 hours of recordings (28 hours of classroom group-work, 42 hours of lectures). It is hoped that this sample is large enough to ensure validity and reliability in the findings.

The recorded speech events have been divided up by taking interactivity into consideration as done in the ELFA corpus, and categorizing speech events as 'monologic' and 'dialogic'. Another way of dividing speech events up is taking location into account. The MICASE corpus, for example, includes sixteen different types of speech events, divided into two main groups: classroom events and non-classroom events. The classroom events comprise small and large lectures, discussion sections, lab sections, seminars and student presentations whereas the non-classroom events include advising sessions, colloquia, i.e. departmental or university-wide lectures, panel discussions or workshops, dissertation defenses, interviews for research purposes, meetings, office hours, service encounters, study groups, tours and tutorials. However, what are categorized as 'non-classroom events' in the MICASE corpus have proven to take place in classrooms in the corpus compiled for the present study. For example, student group-work, termed 'study groups' in MICASE, often takes place in classrooms in the Swedish context with or without the presence of a teacher or an assistant. Although students work on their own on a task they have been assigned, they do the work in classrooms. The present paper uses the terms 'monologic', e.g. lectures, and 'dialogic', e.g. student group-work, to refer to the speech events recorded.

The group-work sessions and lectures[3] have been digitally recorded and have all been analyzed for the present project. The data have been recorded straight into the computer through a special program called

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[2] Sustainable Energy Engineering, Sustainable Technology, Energy Technology, Machine Design, Communication Systems, Computer and Systems Science, Electronic, Computer and Software Systems, Chemical Engineering and Technology, Chemical Reaction Engineering, Transport Phenomena, Energy Processes, Aeronautical and Vehicle Engineering.

[3] A part of the lecture recordings comes from already recorded lectures from one of the departments.

Audacity (version 1.2.4), a free cross-platform audio editor that runs on Mac OS X, Windows and GNU/Linux. This program was chosen in the beginning of the study specifically because of its practicality and user-friendliness. The data come from real high-stakes technical speech from content courses, i.e. non-language-teaching contexts, which is a strength of the present study. Another strength is the fact that group-work as a genre has been included in the investigation. Such highly interactive speech events are quite rich in terms of examples of usage and therefore reveal considerable data that are not necessarily observable in other speech events. Apart from the ELFA corpus, such group-work has been almost ignored in the research of spoken university registers (Biber et al., 2002: 9).

The subjects come from twenty different first language backgrounds, namely Spanish, German, Swedish, Arabic, Russian, Persian/Farsi, Icelandic, French, Turkish, Italian, Chinese, Somali, Greek, Uzbek, Finnish, Catalan, English, Polish, Serbian and an Indian language. 50% of the students were exchange students from different countries, 25% were Swedish and another 25% were ethnically non-Swedish, i.e. residents in Sweden who have another home language than Swedish. When it comes to lecturers, 54% were Swedish and 46%, speakers of other languages. It is worth noting that none of the foreign languages in the material dominated over another one. Altogether, 63 speakers were recorded.

For the investigation of the material, all the occurrences of morphosyntactic non-native-like usage from the group-work sessions and lectures were identified, noted down and transcribed. In the next stage, the following criteria were applied: the feature had to be used by different speakers in different types of speech events and for a minimum of ten times. The ones that matched the criteria were grouped according to two dimensions: form and communicativeness.

The first dimension deals with form: the features were classified as 'Morphological' or 'Syntactic'. The findings in the syntactic category were grouped at phrase and clause levels, and the phrase level was further divided into 'Noun phrase level' (NP) and 'Verb phrase level' (VP).

The second dimension deals with communicativeness. The study investigated whether a feature is 'disturbing', i.e. causing overt comprehension problems or 'non-disturbing', i.e. causing no

comprehension problems. Overt comprehension problems are relatively easy to spot in student group-work. Problems in communication generally result in questions raised by the students working together on the given task. Even if they choose not to reveal problems in comprehension, miscommunication or lack of comprehension becomes apparent at a later stage of the group-work since, in such an event, they fail to get to the intended outcome. Lectures are, however, harder to analyze when it comes to comprehension. The present study relies on the questions raised during lectures by the students.

At a later stage of the present study, whether a feature is 'irritating' or 'non-irritating' will be investigated to examine attitudes and listener friendliness using the data that will be obtained through interviews and questionnaires.

The analyses on form show that most of the features reported in ELF research earlier (Seidlhofer, 2004: 220) are present in the material, but there are additional findings that have not yet been reported elsewhere, which will all be exemplified here.

5. The features found

5.1 Morphology

In the morphological part, the commonalities are 'Non-standard word formations', 'Analytic comparative' and 'Non-standard plural forms/Countability'. The speakers produce non-standard forms in word formation (e.g. *boringdom, discriminization, forsify, levelize*), the analytic comparative (e.g. *more narrow, more cheap, more clear*) and plural forms (e.g. *how many hydrogen, peoples*). Altogether 41 cases of morphological non-standard usage were found in the dialogic material and 54 in the monologic part, none of which caused overt disturbance in communication. It is striking that, considering the size of the material, there are few cases of divergence from native usage of morphology per hour.

5.2 Syntax

In the syntactic part, the commonalities are at two different levels, as stated above. Altogether there are 294 cases in 28 hours in the dialogic material and 737 in 42 hours in the monologic material.

5.2.1 Phrase level

5.2.1.1 Noun phrase (NP)

At the phrase level, starting with the noun phrase (NP), the features found comprise 'Not marking the plural on the noun', 'Problematic usage of articles', and 'Double comparatives/ superlatives'. One of the most interesting features perhaps is 'Not marking of the plural on the noun', considering the importance and frequency of quantity bundles in engineering (Biber, 2006: 170-171). The speakers seem to indicate the plural meaning merely by numbers or by adverbs or determiners before the noun but leave the noun itself without a declension. Some examples of this are given below (1-6):

(1) They have a range from **50 to 500 meter.**
(2) Typically you want to have **five kilogram of oxygen.**
(3) For example, you take **two piece of glass**.
(4) So there are **two way** of stating the same….
(5) In our department we have **three gasifier.**
(6) And these are the destinations. **Seven different destination.**

and (7)-(10):

(7) In **many many case** you can gasify it.
(8) …**all the dynamic part**.
(9) There are **some difference**….
(10) ..several **conclusion**…

When it comes to article usage, there are cases where the article is superfluous or incorrect, as in (11)-(14):

(11) You will have **a** efficiency curve….
(12) If you have **a** extremely efficient compressor…
(13) If you go to **the** Belgium, all the highways are lit.
(14) You can use it in **the** different ways.

There are cases where the article is missing, exemplified in (15)-(17):

(15) From those figures, you can have▼ idea what reasonable speed runner size….
(16) You can add timing interphase for ▼ memory system.
(17) Who has paid for the infrastructure? That's always▼ interesting question.

The last group of features at the noun phrase level, 'double comparatives/superlatives', simply include examples such as *much more safer, much more wider, more bigger, the most cheapest available biowaste* etc.

5.2.1.2 Verb phrase (VP)

The main cases of non-standard usage at the verb phrase level (VP) are 'Subject-verb disagreement', 'Tense and aspect issues' and 'Problematic usage of passive voice'. To start with, there are many cases of subject-verb disagreement in the material, a feature often found in L2 speech. The material in the present study has examples of this (18-22):

(18) I will talk about how **a turbine operate** in the system.
(19) However, **the runner blades was** not that good developed.
(20) Angle of the **runner blades are** reduced.
(21) There is **a further method which are** sensitive to porosity in rocks.
(22) And **many many parameters is** affecting this one.

The strongest feature when it comes to tense and aspect issues is the very frequent use of the progressive, again a common feature in ELF (Ranta, 2006). This is unlike native speaker academic discourse, for which the "simple aspect is overwhelmingly the preferred option" (Biber, 2006: 63). However, native usage of the progressive has been increasing for several hundred years and continues to do so (Smitterberg, 2005). The speakers in the present context often make sentences to refer to scientific or technical phenomena that are always true or valid, and despite this, they use the progressive instead of the simple form, as in (23)-(26):

(23) A Francis turbine **is using** the whole turbine equation.
(24) Typically the energy of the sun **is emitting**…
(25) My idea is to explain how this board **is working.**
(26) How much rain **are you getting** per year?

Examples like (27) where the simple form is used instead of the standard progressive form were infrequent in the data even though they are typical of Swedish interlanguage:

(27) **Now I talk** about optimized turbine with large…..

The third group at the VP level contains deviant passive voice. Although used much more frequently in engineering discourse than in other university registers, passive voice is rare in spoken university registers (Biber, 2006: 65). Correspondingly, there are few occurrences of deviant passive voice in the present material. However, there are some examples (28-32):

(28) And the plates **get heat up** very quickly.
(29) They are not directly **affect** by these concentrations.
(30) It **can be happened** that sometimes…
(31) ……..devices **that can attach** to your pc.
(32) I think it's a rather huge project **that built** underground.

5.2.2 Clause level

The second main section in the syntactic analysis is the investigation of the clause level. At this level, there are three interesting cases of non-standard usage, namely 'Non-standard question formulation', 'Pre- and post- dislocations' as described earlier by Mauranen and Swales (Mauranen, 2007; Swales, 2007), 'Word Order' and 'Negation'.

To start with, there are numerous cases of non-standard question formulation in the corpus as shown in (33)-(37), observed both in Wh- and Yes/No questions:

(33) So what kind of plant you have to consider?
(34) Why is not good to combust directly?
(35) Why it is black?
(36) Why the function looks like that?
(37) Anybody can define the renewability?

So speakers in ELF contexts sometimes seem to disregard question word order and ask questions mainly by using interrogative pronouns e.g. *what, why* in Wh- questions and follow the affirmative sentence word order in Yes/No questions. This type of usage is found mainly in the dialogic material in the present study. It is highly likely that the speech event type is the main factor behind this: in group-work, speakers often raise questions to complete the task whereas in lectures, it is not so often that the lecturer directs questions to the floor. This type of deviance

differs from all others discussed here since it is the only one that has disturbed communication and led to repetition and rephrasing in some cases.

The next typical feature of ELF usage is a special case of a deviance from standard written English which is shared by native usage: Pre- and post-dislocations. They occur frequently in academic speech and are used to topicalize or highlight information both by native and non-native speakers. Mauranen refers to fronting as a typical feature of spoken language and maintains that this is possibly the reason why it has been referred to as 'Left dislocation', a rather negative term, since it is regarded as an error in grammar (Mauranen, 2007: 253). In the ELFA data, the basic construction is: (Demonstrative+) NP_1+ coreferential subject $pronoun_1$ (Mauranen, 2007: 254). Although this is not the only construction in the present study, there are many examples of it, especially in the monologic material as in (38) - (41):

(38) The supercapacitors I don't know much about them.
(39) The pores that's where we have the large surface area.
(40) But the drawback here it is not very easy to extract hydrogen from water.
(41) And the nano-particles they are in the surface area.

Pre-dislocations are more frequent than post-dislocations in the material, which is in line with what was reported by Maybaum and Swales (Maybaum and Swales, 2006). Their investigation on MICASE data showed that only 13 % of the dislocations in total in the MICASE material were post-dislocations. In the present material, post-dislocations make up about 15 % of the monologic examples and 13 % of the material in total. This seems to show that pre- and post-dislocations are genre-related, which makes it hard to claim that it is an ELF feature. The ELF speakers employ a wider range of syntactic devices for them. Some examples of post-dislocations are given in (42) - (45):

(42) **This** could be 80 per cent **the margin efficiency**.
(43) Well **it** is not so emission-free **hydropower.**
(44) But you manage much better **the float control.**
(45) You have very big parts of **it flatland**.

The next point deals with word order issues. The material has examples of non-standard word order, most of which have to do with indirectness such as the ones in (46)-(50):

(46) One of them is energy; another is **how fast can you recover.**
(47) Still we have to find out **what sources do we have on this bus.**
(48) Here you see **how does it look like.**
(49) We have to look at **what did we here.**
(50) You get a feeling **how is the cost developing for windfarm.**

Another quite interesting area is negation. Failure to raise negation from the subordinate clause to the main clause seems to be common especially in the dialogic material with some examples also in the monologic material (51)-(55):

(51) It is a **not** very good generator.
(52) It has **not** always a low complexity.
(53) This point is supposed to **not** move.
(54) It looks **not** good.
(55) But that caught fire **not** because of the hydrogen.

The features reported in the syntactic section above are not necessarily unique to a lingua franca context. A corpus of native speech would turn up some oddities as well. However, the disfluencies of native speakers are more random as opposed to 'concentrated', which is observed in the present material. The number of occurrences for each feature as exemplified above is shown in Table 1.

Table 1. The number of occurrences of the features found in the dialogic and monologic material.

			Dialogic	Monologic
MORPHOLOGY		□ Incorrect word forms/word formation	7	6
		□ Incorrect analytic comparative	15	18
		□ Incorrect plural forms/countability	19	30
			∑ 41	**∑ 54**
SYNTAX	**NP**	□ Not marking the plural on the noun	37	154
		□ Article usage	30	159
		□ Double comparatives/superlatives	16	8
(1) Phrase level			**∑ 83**	**∑ 321**
	VP	□ Subject-verb agreement	53	126
		□ Tense and aspect	33	130
		□ Passive voice	11	11
			∑ 97	**∑ 267**
		□ Question formulation	56	18
(2) Clause level		□ Pre-& Post-dislocation	19	88
		□ Word order	23	31
		□ Negation	16	12
			∑ 114	**∑ 149**

6. Discussion

6.1 Two different types of interaction: dialogic vs monologic

Recordings of two different types were analyzed in the present study: dialogic and monologic, and the results suggest some differences between the two different forms of interaction in the university setting in this investigation.

The first difference has to do with incomplete sentences in the dialogic material, i.e. fragments instead of complete sentences. Although this was not one of the points of investigation, and thus not one of the

findings as such, it is noticeable in the material. In a way, it is not unexpected to have incomplete sentences in dense discussion. This might indicate that the requirements for standardness are not operative in this kind of interaction.

The excerpt below (56) from a group-work session[4] where four students were working together on a task illustrates this:

(56)

<S1> now we have the we have </S1>
<S2> this one </ S2>
<S1> we have this is the material balance </S1>
<S2/> yeah
<S1> we have quantity of outlet , nitrogen , now , we make [energy balance] energy balance where is the energy balance of yesterday , show me </S1>
<S3> [energy balance] </S3>
<S1> [show me] </S1>
<S2> [here] </S2>
<S1> where is the energy balance of yesterday , show me , show me </S1>
<S4> is it ready , are we ready </S4>
<S1> it's not ready </S1>
<S2> what </S2>
<S1> the problem , not ready @ @ </S1>
<S2> it's not ready no </S2>
<S1> we heard that the function is available we just not . but [it's not ready] </S1>
<S2> [he didn't say anything] about it <S2>
<S1> yes ok let's hurry up [it is] </S1>
<S2> [the energy] balance this this pretty much written here but we have to , i don't know what is calling the functions , or the variables that's the problem so i couldn't do it here </S2>
<S1> because here he put the function it's ready now just the . to calculate the , the original functions to calculate the parameters , functions that they calculate parameters , first that used in the main function this is what we are going to do ok let's do the energy balance now </S1>

The excerpt above has examples of incomplete sentences, as well as non-standard usage of articles, tense and passive-voice etc. It is quite representative of the dialogic speech in the material in general with fragments and frequent divergence from standard forms.

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[4] The transcription symbols used here have been taken from the ELFA site and can be accessed at http://www.tay.fi/laitokset/kielet/engf/research/elfa/.

Monologic speech is made up of mostly much longer and complete sentences than dialogic speech. This is clearly not a direct effect of the speakers' language proficiency; it is a generic feature. Lectures traditionally give input, and material is presented through monologic discourse (Csomay, 2007: 352). And unlike the multiple speakers and negotiation in group-work sessions, one speaker dominates in lectures with perhaps a few, if any, utterances from other speakers in the form of questions and/ or comments. Lectures are also more rehearsed and practiced and are given by experts in the subject matter who are familiar with the content if not generators of information in the field with their research. In such speech events given by such speakers, we are more likely to hear complete utterances. See (57)-(60) below for examples of a lecturer's speech from the material:

(57) <S1> the truth is that the architecture , the micro-architecture of a modern processor is decoupled into several smaller units , the instruction will definitely be fetched and after that it might very well wait in a queue for a varying number of clock cycles , and then it will be decoded , probably in parallel with a few other instructions and then it might very well wait in another queue somewhat larger until it is possible to issue the instruction </S1>

(58) <S1> so the reorder buffer is similar to the instruction window in the respect that when the reorder buffer gets full no instructions can be fetched and decoded until we have room in the reorder buffer </S1>

(59) <S1> the instruction window is emptied when instructions are issued , when calculation begins we can remove the instruction from the instruction window </S1>

(60) <S1> when instruction results are ready they should definitely be stored in the reorder buffer because they must not be written to the register file until we know that the instruction is to be committed </S1>

Although the numbers given in Table 1 cannot be converted to frequency in the present study, when we look at the features that emerged from the data, we see that the profiles in these two different genres are somewhat different, as shown in Figures 1 and 2:

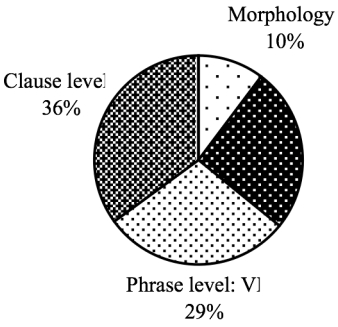

Figure 1. Dialogic material.

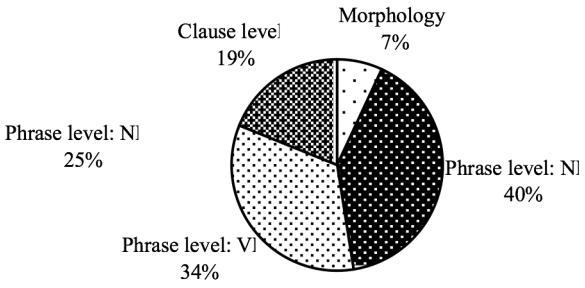

Figure 2. Monologic material.

The most apparent difference between the two genres is at the clause level: First, dialogic speech has many more occurrences of question formulation. This is a generic feature since group-work sessions traditionally generate frequent questions whereas lectures do not. The situation is similar for negation. There are few reasons to negate in the absence of dialogues or negotiation. Word order, however, is a different issue and follows the pattern observed at the phrase level; there are more occurrences in the monologic material than in the dialogic one. Finally, pre- and post- dislocations are much more frequent in the monologic material with 88 cases in total, compared to the dialogic material (only 19 cases). Such structures are used for topicalization and are frequent features of spoken language used for clarity and explicitness. We can, therefore, conclude that non-standard question formulation, negation and pre- and post- dislocation are generic features.

We see that there are quite stable ELF features that cross over situations, language backgrounds and environmental language constellations. The features mentioned in the research that are based on the ELFA corpus from Finland are present in academic speech in Sweden. This is striking, considering the typological differences between Swedish and Finnish. The features are not only the same as in Finland but also across genres. On the other hand, there are not very many examples of non-standard morphosyntactic usage per hour, some of the reported features are shared with native usage and therefore not unique to ELF situations, and the features display variation. ELF does not seem to be a variety; it is characterized by variability.

6.2 Is ELF an effective medium?

English as a lingua franca seems to be an effective medium in this setting. The present study confirms that there is not much breakdown over a wide range of situation types and speakers. Despite the large number of examples of non-standard usage in general in both speech event types, the analyses showed very little overt disturbance, i.e. breakdown in communication, in the dialogic material. The only feature that resulted in overt disturbance was non-standard question formulation (See Björkman, 2008 for a more detailed discussion of the results regarding the dialogic material). Although it is much harder to observe and evaluate miscommunication in monologic speech, the situation is likely to be similar to the one in dialogic speech.

However, the infrequency of disturbance in communication may be related to nomothetic disciplines. In nomothetic disciplines e.g. economics, engineering and linguistics, language is used to report results. Moreover, one could have non-verbal material that aids communication. For example, engineering lectures are very often- if not always- supplemented by visual aids. In this material, most lecturers had slides and used a projector all through the lectures, which are aids known to help comprehension of subject matter. Idiographic disciplines, e.g. philosophy, literary study and history, on the other hand, construct results through language and largely depend on verbal material. Hence the situation might be different in such disciplines.

7. Conclusion

The results in the present study are based on a large collection of data covering many different speakers and settings, which enables me to generalize ELF usage in the academy. It enables me to say that there are few communication problems at the morphosyntactic level. It should be borne in mind however that non-standard productive English may be a secondary issue in such settings. Receptive English, i.e. to what extent comprehension takes place,[5] may be a more important issue.

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[5] Termed 'covert disturbance' in the present study.

References

Biber, Douglas; Conrad, Susan; Reppen Randi; Byrd Pat and Helt, Marie. 2002. "Speaking and Writing in the University: A Multidimensional Comparison". *TESOL Quarterly* 36 (1): 9-48.

Biber, Douglas. 2006. *University Language: a Corpus-based Study of Spoken and Written Registers*. Amsterdam: John Benjamins.

Björkman, Beyza. 2008. "'So Where We Are': Spoken Lingua Franca English at a Technical University in Sweden". *English Today* 24 (2): 35-41.

Csomay, Eniko. 2007. "A Corpus-Based Look at Linguistic Variation in Classroom Interaction: Teacher Talk Versus Student Talk in American University Classes". *Journal of English for Academic Purposes* 6: 336-355.

Firth, Alan. 1996. "The Discursive Accomplishment of Normality: on 'Lingua Franca" English and Conversation Analysis.' *Journal of Pragmatics* 26: 237-259.

House, Juliane. 2003. "English as a Lingua Franca: a Threat to Multilingualism?" *Journal of Sociolinguistics* 7 (4): 556-578.

Hüllen, Werner. 1982. "Teaching a Foreign Language as 'Lingua Franca". *Grazer Linguistische Studien* 16: 83-88.

Jenkins, Jennifer. 2000. *The Phonology of English as an International Language: New Models, New Norms, New Goals*. Oxford: Oxford University Press.

Jenkins, Jennifer; Modiano, Marko and Seidlhofer, Barbara. 2002. "A Sociolinguistically Based, Empirically Researched Pronunciation Syllabus for English as an International Language". *Applied Linguistics* 23 (1): 83-103.

Lesznyák, Ágnes. 2002. "From Chaos to the Smallest Common Denominator. Topic Management in English Lingua Franca Communication". In K. Knapp and C. Meierkord (Eds.), *Lingua Franca Communication.* Frankfurt: Peter Lang.163-193.

Mauranen, Anna. 2003. "The Corpus of English as Lingua Franca in Academic Settings". *TESOL Quarterly* 37 (3): 513-527.

Mauranen, Anna. 2004. "English as Lingua Franca – an Unknown Language?" Paper presented at *Identity, Community, Discourse: English in Intercultural Settings International Conference.* Tampere, Finland.

Mauranen, Anna. 2006. "A Rich Domain of ELF – the ELFA Corpus of Academic Discourse". *Nordic Journal of English Studies* 5 (2): 145-159.

Mauranen, Anna. 2007. "Hybrid Voices: English as the Lingua Franca of Academics". In K. Fløttum (Ed.). *Language and Discipline Perspectives on Academic Discourse*. Newcastle: Cambridge Scholars Publishing. 243-259.

Maybaum, Rebecca and Swales, John. 2006. "Pre-and Post-dislocations in MICASE". MICASE Kibbitzer 11. Available at: http://lw.lsa.umich.edu/eli/micase/Kibbitzer/Dislocation.htm

Meierkord, Christiane. 2000. "Interpreting Successful Lingua Franca Interaction: an Analysis of Non-native-/Non-native Small Talk Conversations in English". *Neuere Entwicklungen in Der Gesprächsforschung. Sonderausgabe Von Linguistik-Online 5*.

Pietzl, Marie-Louise. 2005. "Non-understanding in English as a Lingua Franca: Examples from a Business Context". *Viewz: Vienna English Working Papers* 14 (2): 50-71.

Ranta, Elina. 2006. "The 'Attractive' Progressive – Why use the -ing Form in English as a Lingua Franca?" *Nordic Journal of English Studies* 5 (2): 95-116.

Seidlhofer, Barbara. 2001. "Closing a Conceptual Gap: the Case for a Description of English as a Lingua Franca". *International Journal of Applied Linguistics* 11 (2): 133-158.

Seidlhofer, Barbara. 2004. "Research Perspectives on Teaching English as a Lingua Franca". *Annual Review of Applied Linguistics* 24: 209-239.

Simpson, Rita; Briggs, Sarah; Ovens, Janine and Swales, John M. 2002. The Michigan Corpus of Academic Spoken English. Ann Arbor, MI: The Regents of the University of Michigan.

Smitterberg, Erik. 2005. *The Progressive in 19th-century English. A Process of Integration*. Amsterdam: Rodopi.

Swales, John. 2007. "The MICASE Corpus of American Speech". Talk given at the Royal Institute of Technology, Stockholm, Sweden, October 18.

Wächter, Bernd and Maiworm, Friedhelm. 2008. *English-taught Programmes in European Higher Education*. Bonn: Lemmens.