A Pattern Language for Teaching in a Foreign Language -
Part 1

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Abstract. Teaching a technical subject in a foreign language is not just switching to the
foreign language. There are specific problems related to the integration of content and learning.
This paper begins with the mining of patterns which address these problems and intends
to offer practical help to teachers by working towards a pattern language for technical in-
structors who teach students in a second language, and who are not trained in language
pedagogy.

This is the conference version for the EuroPLoP’12 conference writers’ workshop. Please
note: the authors would like to get feedback especially on following patterns: INPUT SELE-
TION, LUCKY LANGUAGE CLOVER, METATALK, and TEACHER MODEL. However, feedback
on the other patterns and paper parts is also welcome and appreciated.

Please note: these patterns were mainly mined in existing literature and experience reports.
Therefore they often miss sufficient known uses and fail at this moment to follow the rule
of three. We intend to include more known uses after these patterns have been applied and
adjusted more broadly.

1 Introduction

Education in different languages can serve different educational and social goals [19]. The educa-
tional focus of competence based courses is not on language learning as a separate subject, but on
integrated learning with professional activities at its core, a learning by doing approach. In such
a context, teachers easily decide on the use of a foreign language as the medium of instruction,
without giving the risks this may bring much further thought. Yet integrated learning can only
be successful when sufficient attention is paid to both sides of the coin: language and core com-
petences. So raising awareness among teachers to pay attention to both aspects is a first step and
offering them a practical helping hand a second step. There are practices which can be used to im-
plement these principles, but language pedagogy methodologies do not include the descriptions
of these best practices detailed enough for subject-specific instructors to apply them without having
had a language pedagogy training. Such teachers need a practical and easily applicable manual for
the integration of the foreign language in the courses.

In modern language pedagogy, two essentially different views prevail [22]: the language struc-
ture view and the communicative view. In the language structure view, learning grammar must
come before learning how to communicate in a foreign language. Foreign languages are taught
and tested by applying the right grammatical rules, practicing correct pronunciation, idiom and
vocabulary. The communicative view on the other hand aims to teach grammar in the context
of communication tasks. In this view, a students proficiency can be tested when communicating
during authentic tasks, allowing compensation strategies (gestures, explanations) for lack of idiom
and vocabulary. The latter vision collocates with competence-based education, in which knowl-
edge and capabilities are taught within the context of (nearly) authentic work situations, and not
as separate subjects. In this type of educational setting, English classes may be integrated with
subject-specific classes, with subject-specific teachers teaching professional use of a foreign lan-
guage by using it as the medium of communication in class. The reverse, English teachers teaching
a second subject, is much less common. Besides many benefits, this approach to teaching foreign
language also carries several risks, the main one being lack of language pedagogy skills of subject
specific teachers. Moreover, the level of proficiency in the second language of both teachers and
students may vary greatly. Teaching a course without taking these differences into account could
have a negative impact on students’ understanding of the course content and be counter-productive.
Content Based Instruction (CBI) and Content and Language Integrated Learning (CLIL) are both methodologies of improving second language proficiency through teaching specific subjects, providing the benefit of functional exposure to foreign languages [13]. CBI is aimed at second language learners living in English speaking countries, who lack fluency due to extensive use of their mother tongue outside the classroom; teachers are native speakers of students’ second language. CLIL is aimed at classes in which both teachers and students are still developing their second language skills by giving or taking extended classes on specific subjects in a second language. Typical components of a CLIL or CBI approach are vocabulary and cooperative learning strategies, and practicing reading, writing, listening and discussion. According to Schleppegrell et al., visualisation and hands-on activities are useful means for beginners in learning foreign language grasp the meaning of the teacher’s instruction [23]. Yet advanced learners need a greater focus on language to improve their level of proficiency.

The proposed patterns are aimed at subject-specific teachers without any formal language pedagogy training who as non-native speakers occasionally teach a subject-specific class in a foreign language to non-native speakers of this foreign language. For this specific target group, most best practices advised in CLIL or CBI handbooks lack solid underpinning arguments, the proper context of use, or an exact description of the problems they address. Without specific modern language pedagogy training, they need more clear rules of thumb to properly apply the right strategies.

This work therefore aims at reaching the following goals:

- Find and describe the common principles of existing methodologies and approaches in order to build a common vocabulary — a pattern language — which can be applied to generate the desired results.
- Provide teachers who wish — or have — to teach specific subjects in a foreign language with practical strategies to take language-related aspects into account without having to fully master a high-level methodology like CBI or CLIL.

Student’s learning of the non-language subject matter may suffer due to foreign language difficulties and foreign language competence will not grow [8]. Just giving the opportunity to use the other language in a programme is not enough for sufficient learning [19]. Without knowing the specifics of language teaching, content teachers are often not aware of any language barriers when switching to a foreign language as a teaching medium. As the foreign language to be used often will not be her mother tongue, the teacher may have some difficulty in expressing herself properly as well.

The teaching of language and content in one course could be done in a team where one teacher is responsible for the language part and the other for the content. Studies show that this splitting is not very effective and can be counter-productive [8]. In general, teachers are proficient in one domain, either the foreign language or the content of the course. It is difficult to be good in both and be pedagogically aware of both domains [8]. Quite often teaching content and teaching a foreign language are still seen as separate pedagogical issues [19].

The main focus of this work is therefore to help instructors teach their course in a foreign language without the risk of students falling behind due to low language proficiency. A crucial question for instructors when the course is finished, is: when students fail their tests, is it because of lack of understanding of the technical content or lack of understanding of the second language used? It is obvious that students already have to know the foreign language at a certain level, otherwise the teaching would have to focus too much on language and not enough on the content. In higher education, these knowledge levels can be quite diverging due to various backgrounds. This diversity is the reason why there still are (or can be) language barriers. These barriers can lead to problems with comprehension of the technical content due to the language problems. To prevent failure due to language barriers, teachers can take precautionary measures. So the patterns aim to create awareness and help teachers design the right course for each audience on two levels: content as well as language.

The second focus of this work is therefore to identify ways of integrating the second language in a specific course or class in such a way that language fluency increases without losing the focus on the specific course content. This improvement can be accelerated by adjusting the content teaching in small ways that help with successful language acquisition.
Layer | Layer Description | Patterns
---|---|---
D | A part or unit of the curriculum as e.g. a course lasting one semester, time frame of all hours for that module (25 to 900 hours) | LANGUAGE STATUS QUO, INPUT SELECTION, CONTENT-OBLIGATORY LANGUAGE, CONTENT-COMPATIBLE LANGUAGE, LANGUAGE MONITOR, TEACHER MODEL
C | A thematic unit, time frame of one to many hours | LUCKY LANGUAGE CLOVER
B | A pedagogical unit, or a learning/teaching situation, time frame of several minutes to few hours | METATALK
A | A direct (pedagogical) interaction, time frame of several seconds to minutes | COMMENTED ACTION

Table 1. The layers of educational actions as defined by Baumgartner [2] and the corresponding patterns.

2 The Pattern Language

The proposed patterns in this language can be classified in different levels of educational actions. We use Baumgartner’s taxonomy of instructional methods for this classification [2]. Table 1 gives an overview of the levels\(^1\) and the patterns per layer.

The following list gives an overview of the patterns in this language\(^2\):

Patterns aimed at basic understanding of course content are:

- Assess students’ language proficiency in class room English — or another foreign language — as well as content specific jargon, this is the LANGUAGE STATUS QUO.
- Define the CONTENT-OBLIGATORY LANGUAGE and the CONTENT-COMPATIBLE LANGUAGE.
- Ensure that the material used for the course is at an appropriate language level by a careful INPUT SELECTION.
- Get answers to the question if students indeed comprehend the course content and/or does their level of proficiency improve by installing a LANGUAGE MONITOR.

Patterns aimed at enhancing students’ level of proficiency are:

- Include speaking and listening as well as reading and writing during classes and in assignments, these are the four leafs of the LUCKY LANGUAGE CLOVER.
- Urge students to reflect on their language use by stimulating METATALK.
- Be aware that you are the TEACHER MODEL for the students.
- Use enhanced language and synonyms when giving explanations using COMMENTED ACTION and the earlier defined CONTENT-COMPATIBLE LANGUAGE.

The patterns use a version of the Alexandrian pattern format, as described in [1]. The first part of each pattern is a short description of the context, followed by three diamonds. In the second part, the problem (in bold) and the forces are described, followed by another three diamonds. The third part offers the solution (again in bold), the (empirical) background, consequences of the pattern application — which are part of the resulting context — and a discussion of possible implementations. In the final part of each pattern, shown in italics, we present some known applications.

In the following sections we present the proposed patterns. We finally provide an overview of pedagogical patterns which are especially applicable in the context of teaching content in a foreign language.

\(^1\) The actual taxonomy contains more higher level layers, but these are not relevant for this work.
\(^2\) As this pattern language is work in progress, this list is not complete.
LANGUAGE STATUS QUO

Your assume that students are at a sufficient level of general foreign language abilities, i.e. they have knowledge of basic common vocabulary and grammar and can use the language. You now want to start teaching a course in this foreign language, with a foreign language as a medium of instruction so as to improve the use of this language in a professional setting.

Without knowing the actual level of foreign language abilities of the students it is likely that the language parts of the course design are either too difficult for the students which hinders them in grasping the content or are too simple for them which means that their language understanding probably does not improve.

In undergraduate or graduate programs, students will often have different levels of language proficiency due to their different backgrounds.

Cultural Background. In ICT related subjects, the written classroom materials used are often available in English only, making it harder for instructors to teach these subjects in their mother tongue, as it forces teachers and students to translate parts of the texts used into the mother tongue, e.g. when giving explanations or answering questions. This results in poor quality translations and negatively affects both the teaching and the learning process. Some courses are taught in a foreign language — often English — to attract students from abroad and enable them to take part. The level of language proficiency and the way these students have learned the language in their original countries affects the way the foreign language can be used in such a course. A third background issue may be the students’ level of academic English which can vary greatly, depending on the type of education students have had before entering the course and their knowledge of academic language in their first language [7, 23].

Educational Career. Many courses (or studies) define minimal language requirements, like language courses which have to be attended and finished. This just gives an indication of the minimum level a teacher can expect from the students and still does not say anything about the variety of language levels present among students.

Standard Language. Even though it shows that the understanding and general knowledge of the foreign language is at a sufficient level, it still can lead to problems. In technology courses, the content contains a lot of specific terms — jargon is used as well as language-structures with content-specific semantics. Knowledge of this vocabulary is not reflected by standard language certificates.

Context-specific pretests. Pretesting is often aimed at a narrow range of aspects: what do students know on the subject? What is their general language proficiency? What is needed for competence based learning or integrated learning, is a specific pretest on communication abilities used while performing selected professional and educational tasks in a specific branch or sector you train students for. Context-specific pretests are often tailormade, though their components may be selected from existing proficiency tests.

Therefore: Get to know the language level of all students at the start of a course to obtain a realistic overview for your specific professional and educational goals. Use appropriate tests that include both general language capabilities and context specific abilities, such as class room language, formal academic language, and core professional activities in your field. This is the basis for an adequate language integration in the course design.

The LANGUAGE STATUS QUO is usually gathered by one or more tests and should cover the aspects relevant for the course at hand. These aspects can include:

1. general language abilities — Grammar and general vocabulary, but also the general abilities of reading, listening, writing, and speaking.
2. content-specific language abilities — Knowledge of the course domain language, like jargon or often used language constructs etc. The Content-Obligatory Language and the Content-Compatible Language can be used for testing these aspects.

3. language-related abilities — Like giving (or daring to give) presentations in the foreign language, discussing problems in the language, speaking the language in front of a group, or creating formal writings in the foreign language.

The first aspect can be covered by looking at which courses in the foreign language the students already followed or the language certificates the students own. It is helpful to use proficiency tests based on international standard frameworks for language examination, such as the International English Language Testing System (IELTS), Common European Framework of Reference for Languages (CEFR) or Association of Language Testers of Europe (ALTE). But, as described earlier, there are more aspects which are (usually) not covered by such tests.

In some cases it can be useful to determine the content-specific language abilities of the students, if e.g. the students in a course have different educational backgrounds. If the students follow a fixed study scheme and it can be assumed that they have a more or less equivalent level of language knowledge, this aspect can be omitted.

Commonly used proficiency or placement tests (often) do not include the abilities to use the language in different educational and professional contexts. Missing these abilities can lead to situations where students are not able to give a presentation because they have trouble speaking in front of groups in the foreign language (and not because they don’t understand the content). These tests (often self reflective) give a clearer picture on how students apply the language.

Knowing the students’ current levels per aspect forms the basis for an appropriate set-up of language elements in a course. Depending on the relevant aspects the following consequences can be identified:

- Difficulties in grammar and general language abilities can be improved by promoting Metatalk and including the missing parts in the Content-Compatible Language.
- Depending on the strengths and weaknesses of the students’ abilities to read, listen, write or speak the foreign language, an accordingly balanced mix of the four leaves of the Lucky Language Clover should be included in student activities.
- If content-specific language abilities already are present, then the Content-Obligatory Language and the Content-Compatible Language can be adjusted to cover a broader or deeper range of language aspects. Another consequence could be that less exercises need to put the focus in both content and language aspects.
- If content-specific language abilities are not (sufficiently) present, then the missing parts of the Content-Obligatory Language and the Content-Compatible Language should be taken into account during course design or course adjustment. Exercises should expose the students repeatedly to these language aspects in different ways, e.g. by letting them research the meaning of different content-specific words, using Commented Actions during lectures and working groups, or let them give presentations which require the knowledge and usage of content language (and also makes use of the Lucky Language Clover).
- If the students have shortcomings in language-related abilities then include exercises which let them develop and practice these abilities.

The identified Language Status Quo can also be used as the first check of the Language Monitor. The following checks can then be compared with the beginning situation.

One advantage of testing is that students will become more aware of their language proficiency and that they are able to determine themselves whether their language skills need further improvement.

De Graaf et al. suggest that students should be exposed to input at a (just) challenging level [13]. In order to determine this level, knowledge of the Language Status Quo is required.

The authors applied this pattern at the beginning of a course which was taught in English to students whose mother tongue was Dutch. They had to fill in a short survey stating their last
followed courses in English and the grades received for those. Furthermore they were also asked to fill in a self-evaluation about their abilities and ease of giving presentations, reading technical documentations, explaining technical problems, etc. The test showed the most students were afraid of giving presentations in English at the beginning of the course, so the amount of exercises and assignments which required student presentations was increased, starting with just giving small presentations about a small-scoped problem and ending with a presentation of their final project result.
INPUT SELECTION

Most courses make use of material — literature, websites, tutorials etc. — which covers the content of the course. You now want to start to look for the material and you know the Language Status Quo of the students’ language levels.

Each author has a specific writing style, and as a result, some authors’ texts are much easier to read than others. Getting used to different writing styles takes getting used to.

Complexity. Long sentences and words, academic words, complex concepts and a dense writing style requiring analysis, makes texts hard to understand.

Text cues. Cues such as headings, lists, signal words, and visuals help students understand course texts.

Different book audience. Most of the textbooks available which cover the content of a course and are written in the foreign language are made for people using this language and not for people learning this language. These books therefore do not include language didactics, which might be necessary or helpful if this book is used as input.

Therefore: select comprehensible course input that explains the subject matter in a way that matches students’ language levels and interests.

Krashen looks upon comprehensible input as the primary motivator of language development, immersing students in meaningful input, without any explicit teaching of grammar [17].

Instructors should explain the course content in students’ own words. By asking open-ended questions, asking students to justify their answers, they can help students understand the structure of texts.

According to Carrell, teachers should focus on the readers’ background instead of on the text [7]. Students need sufficient knowledge of text content as well as text structure and grammar. They may fail to understand texts due to lack of text cues or schemata, or culturally specific schemata. She suggests narrow reading, i.e. limiting the number of authors to one. She also advocates students previewing texts, which may include presenting difficult terms and expressions used in these texts [7].

According to Dale et al., as a rule of thumb, no more than 5 of the words on a page should be unfamiliar [10]. Readability instruments can be found online, helping instructors determine the level of difficulty of texts\(^3\).

Köppe uses for a course on Patterns & Frameworks [16] different kinds of literature. As the book by Gamma et al. [12] is a quite difficult reading for undergraduate students, the material was complemented with links to websites which describe the design patterns in a shorter and more comprehensible way. But in the later phase of the course the students had to use the Design Patterns book, but were better prepared for it as they understood the Content-Obligatory Language and the Content-Compatible Language.

\(^3\) http://www.online-utility.org/english/readability_test_and_improve.jsp
CONTENT-OBLIGATORY LANGUAGE

The content of a course is mostly focused on one domain, which often has specific terminology used in this domain. If students have a low general language proficiency, the chances of them failing to understand the real meaning of this terminology increases [21].

Some parts of the foreign language are so closely related to the content of a course that mastering them is crucial to students in order to achieve the course objectives.

Some students may get the wrong understanding of the domain of the course contents. When explaining this vocabulary in the foreign language, they use phrases in the foreign language without grasping their meaning.

**Definition Repetition.** Students know that it is sometimes sufficient to memorize definitions without understanding, as tests are often asking for memorized knowledge only. Not all things have to be understood more deeply and in the broader context.

**False Friends.** When reading a text in a foreign language there are often words which are unknown or the meaning is only vaguely known. Usually the meaning becomes somewhat clearer in the broader context and through the position of the words, but these are just assumptions. Especially terminology in specific domains can give a different meaning to common known words, which can lead to “false friends”.

Therefore: Define the content-obligatory language before and during course design. Expose the students to this language continuously in different ways with an emphasis during the beginning of the course. Let this language repeatedly come back during the whole course to improve acquisition and understanding of this language.

The content-obligatory language can consist of different parts:

- **vocabulary** - the terms used in, and specific for, the domain covered in the course. Example for mathematics would be the terms: Subtraction, Addition, Division, and Multiplication.
- **language constructs** - domain-specific ways of using the language, which are specific for the domain. Examples are the mathematical constructs: ”x is subtracted form y” or ”factor out the greatest common factor”.

The language specific for a domain often includes visuals as well, but these are mostly independent of the language used and should therefore already be included in the content-related material. However, these are also very helpful in language acquisition [13], as they help in relating knowledge structures to associated language expressions [19]. In some cases it therefore can considered to be helpful if these visuals are also explicitly added to the content-obligatory language. The known uses section gives an example of this.

The defined language is a reference for the course design — the used materials, presentations, etc.

Use different communication ways — as defined by the Lucky Language Clover — for explaining the language and exposing students to the language and letting students grasp, practice and apply the language.

To check whether they really understood the domain concepts, ask students to explain them in their own words. This way you will find out whether they’ve simply learned phrases or really grasped a deeper understanding of the concepts and terminology. Especially in the beginning these explanations can also be in the students’ mother tongue, which gives more insight into the deepness of understanding [20].
When defining **CONTENT-OBLIGATORY LANGUAGE**, one should be aware of lexical ambiguities like homonyms, synonyms, polysemy, homophony, or spatial words\(^4\). Explain these cases explicitly and repeatedly, using writing and speaking. Check the correct usage with a **LANGUAGE MONITOR**.

De Graaf et al. suggest the learners should be stimulated to request new vocabulary items [13]. However, in order to ensure that these items contribute to the content too, a list with the essential vocabulary items should be made in advance. This list could also contain the items of the **CONTENT-COMPATIBLE LANGUAGE**.

A serious risk when defining the **CONTENT-OBLIGATORY LANGUAGE** is that it costs the teacher a lot of preparation time, mainly for two reasons: (a) it is not always obvious which parts of the language are really essential for understanding the course content, so determining these parts requires extra time and (b) the amount of relevant terms and constructs can be overwhelming, leading to excessive lists which are not easy to create and handle. To avoid this, select input texts of the appropriate level, using the **INPUT SELECTION** pattern or use visuals to explain domain language.

\(^4\) homonym = one of two or more words spelled and pronounced alike but different in meaning; synonym = words or expressions of the same language that have the same or nearly the same meaning in some or all senses; polysemy = word having multiple meanings; homophony = words pronounced alike but different in meaning or derivation or spelling (as the words to, too, and two);
CONTENT-COMPATIBLE LANGUAGE

You identified the Content-Obligatory Language and included in the course design possibilities so that the students can master it. However, most domains contain more elements of a specific language: synonyms, proverbs or other expressions. While it is not required to know these expressions as well, their use will help improve the overall quality of students’ language skills by adding variety to their vocabulary.

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Only mastering the obligatory language of a course’s content limits the students in their expressiveness.

Language Variety. Things in general are better understood if described in different ways. Using only one set of language constructs restricts the language variety.

* * *

Therefore: Define the language constructs and expressions which enrich the quality of the students’ language and offer opportunities for learning these.

Dale and Cluevas provide an example from teaching mathematics: To understand and be able to use the mathematical concept of subtraction, the expression ‘subtract from’ might be sufficient. But there are many other expressions which can be used synonymously: ‘decreased by’, ‘less’, ‘minus’, ‘differ’, ‘less than’, or ‘take away’ [11]. These offer a broader variety of descriptive possibilities and might also help with the better understanding of the content. Even though the synonymity might be obvious to the teacher, this is not always the case for the students. Therefore documenting these synonyms (as a part of the Content-Compatible Language in advance creates an awareness of these, which also can later be used in a Commented Action.

One starting point for this is the Language Status Quo. But it is also necessary to look at the long-term language learning objectives. This way some vocabulary can already be included which enriches the current language, but is obligatory for follow-up courses [21].
LUCKY LANGUAGE CLOVER

You are thinking about the tasks you want to include in the course design and want to ensure that they also cover the language aspects appropriately.

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Exposing the students to language input only — reading and listening — is not sufficient for creating a lasting effect in learning foreign languages.

Usage motivation. Using a foreign language as medium of content instruction does not automatically lead to language usage of the students too. Some students are simply not motivated enough.

Potential Hubris. Many people think that they master a foreign language quite well because they can read and understand the foreign language. These people often fail when it comes to speaking and writing.

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Therefore: Include all four types of language usage in your course design. Promote reading and listening, but have students writing and speaking in the foreign language as well.

Learning a language requires mastery of all types of language usage: reading, listening, writing, and speaking — the four leaves of the LUCKY LANGUAGE CLOVER. This is referred to as exposure to input (i.e., reading and writing) and so-called pushed output (i.e., writing and speaking). But language input does not always lead to language intake. It is by actively using the language input in stimulating assignments that help students grasp its actual meaning, the input is actually stored in students’ long term memory. So just giving lectures in the foreign language and requiring the students to read literature in the foreign language is not sufficient. Courses must allow for students to write and speak in the foreign language as well, with a special focus on speaking [20]. Producing output requires students to use their passive knowledge of the language to make themselves understood. Thus, their mastery of this language is enhanced [25].

Exercises, assignments, and didactics should therefore take all four leaves of the LUCKY LANGUAGE CLOVER into account. This could be achieved through the use of a variety of pedagogical patterns, e.g., PREFER WRITING [4], PEER FEEDBACK [3], and many others. Swain suggests a collaborative form of writing, as this implies the need for talking about the content [24] and therefore also promotes the use of Metatalk.

When students are asked to explain concepts in their own words — whether in spoken or written form — it helps them store these concepts in their long-term memory and retrieve them when needed. Talking and writing promote learning content and learning languages at the same time. De Graaf et al. also emphasize the importance of practice through relevant speaking and writing assignments [13].

Implementing LUCKY LANGUAGE CLOVER requires careful selection of exercises. Coonan showed that GROUPS WORK [4] leads to a much higher oral output than a classical teacher-led lesson [9]. If LUCKY LANGUAGE CLOVER will be applied in teacher-led lessons, then an extended focus should be put on the questions asked during the lesson, e.g. by applying CAREFULLY CRAFTED QUESTIONS [18], which obliges the students to elaborate their responses more richly [9].

Another important aspect is that not all students make use of the opportunity to speak, most often we see a small group of students which answers most of the questions. The teacher has to ensure that the oral participation is spread over all students equally if possible in order to increase the language learning effect for the whole group. This also requires an atmosphere where students dare to speak, another important aspect the teacher has to take care of.

But even in groups work do not all students automatically make use of the opportunity to speak [9]. They are pedagogical patterns which help to increase the participation of all students,
Another question which needs to be addressed when applying this pattern is whether the use of the native language is permitted at all and if so, under which circumstances. Mehisto et al. suggest that especially when the students are exposed for the first time to content being taught in a foreign language they also should be allowed to use their native language when necessary [20]. This should only be seen as bridging technique and the students should always be encouraged to use the foreign language as much as possible. It has to be clear that using the language at all is more important than using it 100% correctly.

The students in a course on Model Driven Development at the Hogeschool Utrecht had to work on a longer lasting assignment which included a Model-to-Text transformation implemented in a tool new to the students. After the first week all student groups (mostly 2 students) had to prepare and give a presentation about one of the problems they encountered during the first week of the assignment. This included therefore writing (the content of the presentation) and speaking (discussing the content and giving the presentation).

In another course at the Hogeschool Utrecht on Patterns & Frameworks which was given in English this pattern was implemented by having the students regularly give presentations on different topics, e.g. as part of the implementation of Discover Your Own Pattern [15]. A survey taken at the end of the course showed that their ability and self-consciousness regarding speaking and writing improved remarkably [16].
METATALK

Students are already using the language — making use of all four leaves of the LUCKY LANGUAGE CLOVER. But the pace of language acquisition is slowing down and the language skills of the students still vary.

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Students keep using incorrect language constructs and terms. They are not aware of their language shortcomings, and the teacher does not have time to correct them individually.

Hands-on activities. It seems common sense that hands-on activities are of benefit for students when learning new information and language expressions [19]. But this is rather based on general pedagogical principles. But the pure fact of hands-on activity does not necessarily stimulate language learning.

No self-reflection. Students do usually not reflect on their language use.

Insufficient feedback. As teacher there is not enough time to correct all occurring incorrect language uses of students. The students are therefore missing sufficient feedback needed for correction and improvement of their language use.

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Therefore: Stimulate second language acquisition by including exercises or other appropriate course parts which require a collaborative reflection on language usage.

Westhoff [25] explains that language learners often do not apply grammatical rules they have learned in grammar classes, even though they understand them. It appears that in language acquisition, people in fact apply grammar rules they deducted from input they were exposed to. They have all kinds of assumptions and hidden knowledge in the back of their minds, which become clear the moment they try to express themselves in a foreign language. So even students who passed their grammar tests and did their vocabulary exercises, will not immediately use this knowledge in actual communication. However, when talking or composing a joint text, they will become aware of their lack of knowledge, by themselves or as pointed out by others. When given frequent corrective feedback, either by peers or by teachers, students’ accuracy, correct use of expressions and grammar rules will improve [25].

The usage of language to indicate an awareness about their own, or their interlocutor’s, use of language is called Metatalk [24]. Metatalk also helps in acquiring CONTENT-COMPATIBLE LANGUAGE, as students discuss different ways of saying something and therefore broaden their vocabulary and means of expression. This helps students in making use of second language acquisition processes.

It is important that metatalk is encouraged in contexts in which learners are engaged in making meaning. Implementation can be through a dictogloss task [24]. E.g. read the description of a pattern to the students, let them write down familiar words and phrases and afterwards have them reconstruct the pattern based on their shared resources. These can then be compared with the original text. Another possibility is a jigsaw story construction task (give some pictures in unsorted order, let students sort them and write the story down).

If one student in the group is really good, chances are that all the others everyone is following this student. So you have to be aware of this when forming groups of students which are to work together.

This pattern makes use of LUCKY LANGUAGE CLOVER, as discussions are mostly done orally and the results are manifested in written form. These written results could also be used for the
Language Monitor.

Metatalk can also be stimulated in a Peer Feedback situation. The artifacts feedback is given on should be made using the foreign language. According to De Graaf et al., this situation should be stimulated [13].

In a course on Model Driven Development, Christian Köppe let students document a problem that students experienced during the implementation of their assignments. These assignments were done in pairs. The students had to prepare a joint presentation of the problem. The requirements for this presentation were an accurate description in proper English of the whole problem including context and other relevant information, as well as possible solutions they had already tried. The preparation also required the students to not only discuss what their problem actually was, but also how to describe it in correct English. This process promoted Metatalk in combination with the Lucky Language Clover and led to good presentations.
TEACHER MODEL

You are asked to give a course in a foreign language.

Learning is also imitating, but imitating incorrect language usage of a teacher will affect the students’ learning of the language negatively.

Mother Tongue. Not all teachers who give a course in a foreign language are native speakers of this language. Their own language skills might be limited.

Qualification. Teaching content in a foreign language requires the ability of doing so. The combination of teaching a specific content while using a foreign language correctly can be overwhelming, as it requires a greater repertoire of instructional options as fallback if observations indicate that the used option does not work for the students [21]. Evenly important is the ability to select and apply the appropriate instructional options.

Facilitation. The teacher should have the facilities needed for teaching content in a foreign language. These facilities include material, time for preparation (including Input Selection and general course design), and, if necessary, additionally available language courses.

Curriculum objectives. If the language abilities of a teacher are sufficient for giving a specific course in a foreign language depends on the defined curriculum objectives regarding the foreign language.

Therefore: make careful language preparations to ensure that you can instruct students using a foreign language in a correct way for all related language parts, that is to say the Content-Obligatory Language, the Content-Compatible Language and the general language usage. Use the language during the course always at the highest possible and appropriate level.

Swain observed that in cases when considerable teaching of content occurred, no or less attention was paid to the accuracy of the target language use [24]. It is therefore necessary to become aware of being a language model as teacher.

The process of implementing this pattern consists of three steps: (1) assess your level in the foreign language (free online resources are available, such as the Dialang test5) and compare it with the level of the curriculum objectives, (2) carefully prepare your classes to ensure that you as teacher are able to give the course using the foreign language in an appropriate way and (3) use your language consciously during the course while taking the different language aspects into account.

Proper language assessment will help you decide whether you are the right person to teach in a foreign language. Your level in the foreign language should clearly exceed the required level as defined in the language objectives of the curriculum.

People just acquiring specific skills are often unsure if they also can apply them sufficiently, even if the qualification to do so is sufficient. If this is the case it might help to rehearse parts of your classes in front of colleagues and ask for feedback. You could also videotape your classes and review them, to detect points of improvement.

Christian Köppe used this pattern for a course on Patterns & Frameworks [16]. As he’d given the course in English before it was ensured that his language skills were appropriate. During the course he made use of Content-Obligatory Language and Content-Compatible Language in general and also at specific Commented Actions.

5 see http://www.lancs.ac.uk/researchenterprise/dialang/about, last visited on 13 june 2012
COMMENTED ACTION

Also known as: Think Aloud Protocol.

You use different kinds of methods during a lecture to show or demonstrate students complex content-specific abilities.

Content-specific complex abilities may include calculations, drawings, the use of a tool and so on. In general, a demonstration of such abilities, including a few brief comments, may be sufficient for students to understand their workings and use. However, they provide an excellent opportunity for using Content-Obligatory Language and Content-Compatible Language in the right context. Thus students can be exposed to relevant language parts and may use this input for language acquisition as well.

Therefore: Do not only show or demonstrate complex abilities but give a full spoken description of the steps you are taking.

This solution improves mainly the understanding of Content-Compatible Language. The teacher should make conscious use of it, also exposing the students to language variations using e.g. synonyms or different language constructs for describing the same action.

Using spoken descriptions may benefit students who have difficulties grasping the content, as the additional explanations provided help them get a better understanding of the matter at hand.

One implementation could be to Expose the Process [5], which helps in general for a better understanding of the content but, if applied in a foreign language, also with the learning of this language.
LANGUAGE MONITOR

You have designed a course with a focus on both content and language. You have chosen specific learning activities in order to reach content and language goals. You now want to assess whether your learning activities have had the expected results: a good understanding of the course contents and an improvement of students’ foreign language skills.

Judging the progress students make with language acquisition is not possible during lecturing, as this already requires all effort of the teacher. But without judgement you don’t know if the students make progress with language acquisition.

Therefore: Implement regular assessments on the language skills of the students to determine whether they grasped the content and whether their language skills have improved, and use these outcomes to intermittently redesign your course.

Continuously monitoring students’ progress in both areas allows you to redesign your classes based on what students have demonstrated. Such monitors are also referred to as ‘assessments of learning’ or ‘formative tests’. The means of assessment influences the way student study for their tests. So a test that only covers the course content, students will put less effort in expressing themselves properly in a foreign language. This is not the teachers aim, as improvement of language skills will help students better understand the course content. Formative tests should assess both content and language in such a way that students will gain an insight in their current knowledge and will be motivated to close any gaps that have become apparent. Formative tests may include: class room observations, presentations, assessments of team products, posters, reports and the like. Met also suggests the form of small conferences as a good source for data [21]. The best assessments are based on ‘rubrics’, a matrix of a range of criteria and 3-4 categories describing different levels. Both the language and the course content are among the criteria.

Another way of applying this pattern is comparing the results of two different LANGUAGE STATUS QUO, determined at the beginning and at the end of a course or the beginning of the next course. These are called summative tests. They cannot be used to motivate students during courses or to alter the course’s learning activities during the course. They are however much less time-consuming to create than formative tests using rubrics, as they often consist of close ended questions, reports or presentations exam style, resulting in a single mark.

A LANGUAGE MONITOR can also be applied using self assessments of the students. Butler reported some positive effects of regular self assessments among young learners of English, including an increased confidence in learning English and a greater ability in assessing their actual level of English [6].

One of the results of applying this pattern are insights into how to adapt the CONTENT-OBLIGATORY LANGUAGE and CONTENT-COMPATIBLE LANGUAGE objectives in future lessons and units [21].

Mariëlle Nijsten and Christian Köppe used this pattern by taking the LANGUAGE STATUS QUO at two different moments and comparing the results of these. This way an increase in both the abilities of speaking and writing could be observed.
Related Educational Patterns

Some problems which can occur when teaching through a foreign language are already addressed by existing educational patterns. These related patterns are described in the following sections.

Extra Waiting Time

It is good practice to give students time for formulating an answer to the question raised by the teacher. The pattern *Pregnant Pause* [18] addresses this issue. In a foreign language context this is especially important as students do not only have to think about an answer, but also need to formulate it. This requires therefore some extra time.

Student Activities

The students can be introduced to the Learning Patterns *Language Shower* [14] and *Foreign Language Every Day* (unpublished yet).

Honor Questions

It is helpful to *Honor Questions* [18] which are related both to the content and the language. This should be emphasized continuously.

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References