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READING COMPREHENSION IN LSP CLASSES: CONTENT FAMILIARITY, LITERAL READING AND INFERENTIAL COMPREHENSION

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ABSTRACT: *The aim of this article is to determine the relationship between learners' familiarity with domain knowledge and their comprehension of specialized texts. In fact learner production capacity may be affected by their difficulties in understanding the words, and also the content, when the students are not familiar with the subject dealt with in a text. With a French written-text on the stock exchange and open English-written questions to be answered in English, a large number of my students were unable to show much comprehension of the content of the text although the latter provided very clear explanations in their official language, i.e. French. With no stock exchange in Benin, and only one stock exchange for the whole of West African Economic and Monetary Union (WAEMU) of which Benin is a member-country, the students who have no stock exchange culture could not display much understanding of the concepts relating to the specific domain of the stock-exchange, the New York Stock Exchange (NYSE) index, the Dow Jones Industrial Average, and many of them failed in their inferential comprehension, even though they may easily have a literal comprehension of the text. In conclusion, literal understanding is not enough to ensure the inferential comprehension of a text no matter the language it is written in.*

KEYWORDS: literal comprehension, inferential comprehension domain knowledge, stock exchange, the Dow Jones Industrial Average (DJIA), language for specific purposes.

INTRODUCTION

Reading may not entail deep comprehension. While reading a text, a reader creates an understanding of the material that is being read and "this *meaning-making* – this comprehension process – entails the construction of a mental representation of the information in the text, and this representation can in turn be accessed later, when memory for the material is called for" according to King (2007, p. 267) for whom there are different levels of comprehension sometimes referred to as "literal versus inferential comprehension", or "shallow versus deep comprehension."

Reading comprehension classes, in the field of language for specific purposes (LSP), are classes where language teachers face a lot of difficulties in helping their students understand specific domain texts, especially when students are not knowledgeable in the specific domain and when the teacher, who may not know much him/herself in the domain, has to teach both domain concepts and grammar through reading materials the content of which is hardly understandable by learners who are supposed to be knowledgeable in the domain (Fanou, 2009). In this context, the teaching of content and form through reading comprehension tasks may not be very successful and neither literal nor inferential comprehension may be achieved easily by learners, no matter the number of years' experiences of the language teacher.

In fact, a reader needs a minimum prior knowledge in the specific field-related content to understand a text since text passages, no matter how simple they are, require the reader to use

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prior knowledge to fill in unmentioned details in order to understand the meaning of a text (Samuels & Kamil (1984). With a French-written text on the Dow Jones Industrial Average (DJIA) of the New York Stock Exchange (NYSE), and some French written questions, this article will show how literal comprehension can impact inferential comprehension and the importance of domain knowledge for inferential comprehension in LSP classes.

DIFFICULTIES RELATED TO READING IN A FOREIGN LANGUAGE

Learners face lexical difficulties, and also cultural difficulties related to the degree of familiarity with the culture of the specialists of the domain relating to the issues concerned with in a reading comprehension passage.

Literal comprehension difficulties

The first kind of difficulty the reader of a text may be confronted with is related to literal comprehension. S/he may not understand the text and hardly know what the words used in it are all about. For Walker, Munro & Rickards (1988: 88), the literal level of reading comprehension may be defined as the reader's ability to "gain meaning from the print" and it "essentially captures surface code features and text-base meanings explicitly stated in the text as well as the connecting devices that bind these text constituents locally" (Alptekin & Erçetin, 2011: 242). With such a difficulty, readers are prevented from all possibilities of understanding the text, of comprehending it in such a way as to interpret it, to manipulate it, and to answer questions relating to its content. So the first thing needed for comprehending a text is the capacity of reading it literally. However, the literal comprehension of a text is not enough to ensure its deep comprehension. "It simply represents the author's propositional message, falling short of generating new information that would extend and refine the text-base on its way to becoming integrated with a situational representation of what the text is truly about" (Alptekin & Erçetin 2011, p. 242).

In fact, apart from the difficulties related to "getting meaning from the print", other handicaps may still lay ahead for the reader and prevent him/her from understanding fully the text s/he is reading. Generally, there is in a text some information that is not explicit and which the reader with no prior knowledge may not understand easily:

Writers generally leave some material implicit in their text as they assume that the reader will easily figure it out (infer it) from the text. This "figuring out" of implicit information is called inferencing and is considered to be a central part of the comprehension process (King, 2007, p. 269).

Literal reading and inferential comprehension

Literal comprehension may help achieve inferential comprehension which involves a deep understanding of the content of a text. It is even difficult to separate literal understanding from inferential comprehension (Perfetti, Landi, & Oakhill, 2007, p. 234). According to Alptekin & Erçetin (2011: 241), Literal comprehension is generally the first step the reader goes through as s/he "engages first in the linguistic processing of surface-level textual features" which will help him/her construct a text microstructure with further relating propositions in close proximity in the text so as to form "a coherent semantic whole". For King (2007, p. 268), whereas literal (shallow) comprehension of a text reflects a minimally coherent mental representation, deep comprehension is indicated by a highly coherent, richly integrated,

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plausible representation. In terms of Kintsch's (1974, 1988) levels of mental representation (surface code, text based, and situation model), shallow comprehension results from processing text at the two lower levels: surface code and text based. This level of processing provides a representation that captures only meaning explicitly stated in the text – the what, who, where and when of the passage. In contrast, deep comprehension is achieved when the reader goes beyond literal comprehension to use the explicit text and that reader's own prior knowledge to construct such understanding as causes to explain why the events recounted in the text occurred.

For literal reading to be successful, it is important for readers to know or guess the meanings of the words in a written text. According to Ko (2012: 57), paraphrasing Nagy (1997), "learners must know the majority of the vocabulary in any text to be able to guess the meanings of unknown words successfully" even though, as he also points out (p. 57), "L2 learners cannot make intelligent guesses in the same way as native speakers due to their lack of vocabulary knowledge or general proficiency level. Also, a given context often does not provide sufficient clues to L2 readers."

A solution to the problem of difficult text input for L2 readers is input modification, "a pedagogical intervention in which a teacher manipulates a target form to help learners acquire the form" (Ko, 2012, p. 57). An example of input modification is the production by the teacher of a nativized version of the original or authentic material (Alptekin & Erçetin 2011, p. 250), by slightly adapting a narrative story to the social setting of the learners. This adaptation of input may help in both literal and inferential readings, even though a nativized version may lack certain features of the original version and may be considered as not conveying exactly the same message, or portraying the same reality, as an authentic text.

Another example of input modification is glossing (Ko, 2012, p. 57) which can aid vocabulary learning and assist reading comprehension as it can be "used as modified input to facilitate vocabulary learning. By providing additional information such as definitions or synonyms, glossing helps students cope with insufficient contextual cues in learning new words while reading." For Hoey (1991: 241), priority should be given to topic-related words which form links when the text writer provides glosses to accompany a text as "this would have the effect of helping the learner quickly make sense of a text, because the sentences central to the topic would be understood." However some researchers consider that modified texts do not demonstrate cause-and-effect relationships and do not properly develop plots and ideas (Crossley, McCarthy, Louwerse, and McNamara, 2007).

For Perfetti (1989), inferences refer to the vital distinction between text meaning and text interpretation, the former being determined by the text-base and the latter by the situation model. Whereas literal reading helps grasp surface-level textual meaning, inferential understanding helps interpret the text and go beyond the print. Alptekin and Erçetin (2011: 241) distinguish bridging inferences and elaborative inferences and point out that although strategically formulated bridging inferences of a global nature help set up database coherence, elaborative inferences (Singer, 1994), which are technically "extratextual inferences" (Graesser et al., 1994, p. 376), expand upon and embellish textual content to form a coherent mental representation of the text. In elaborative inferencing, the inference is derived from readers' knowledge structures that are relevant to textual content, requiring them to reason beyond the text in order to generate new information. A learner with some global bridging

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inferences may still be at the text-base level, i.e. the text-internal meaning level or surface code level, involving mainly some "text-connecting inferences (Graesser, Singer, Trabasso, 1994), but not yet at a level that can enable him/her to effectively interpret the text and generate new information. As a matter of fact, text inferential comprehension is not possible without "elaborative" or "extratextual" inferences.

Domain knowledge and inferential comprehension

When learners have no (or limited) knowledge of the domain the text to be read is concerned with, as it is often the case in my classes of English for Specific Purposes (ESP), reading comprehension tasks are rather difficult for the learners who generally try – most of the time unsuccessfully – to process reading comprehension texts literally, which is a frequent feature of L2 readers as Alptekin and Erçetin (2011), Alptekin (2006), Horiba (1996, 2000), Jonz (1989) and Taillefer (1996) point out, and which is due to inadequate language proficiency (Clarke, 1980), and leads to:excessive focus on surface – and propositional – level features (lexical decoding, syntactic parsing, coreferencing), leaving few cognitive resources available for allocation to long term memory (LTM) - based data, which would normally contribute to the generation of a meaningful text representation (Alptekin & Erçetin 2011, p. 237).

Text-based processing is not enough to help understand a text (input) effectively, process it (intake) and provide appropriate production (output). Moreover, in the teaching / learning of foreign languages, and in the specific field of languages for specific purposes (LSPs), students generally fail to process the text inferentially, especially in the context of independent learning. Their limitations are usually due, not only to some difficulties related to literal reading, but also to a low degree of interaction between the reader's domain and textual content (Carrel 1987, Lee, 2007), for when the two are congruent, L2 readers can make use of their higher – and lower – order cognitive operations and get to a deeper comprehension of the L2 text owing to their knowledge-driven processes ((Fincher-Kiefer, 1992).

In short, in the teaching / learning of ESP in particular, inferential text reading may not be successful with students who are not experts in the specialist subject (Fanou 2009 & 2010). And when they know little or nothing in this subject, the teacher finds it too difficult to carry out his/her teaching and is generally compelled to do some Content and Language Integrated Learning (CLIL) (Fanou, 2010) and s/he thereby teaches both content and form. Specialized texts generally contain a large proportion of technical words which are "difficult to guess from context if the reader does not already have a good background in that technical area" (Nation, 2005: 204).

For inferential comprehension to occur then, in the context of LSP teaching, one of the foremost conditions is that the learners should be knowledgeable enough in the specialist subject that the reading comprehension text is concerned with. Both language learners and their LSP teacher need to know the technical field the text is about so that comprehension, especially inferential comprehension, can take place as "learners who know the scientific field may have little difficulty with technical words; a teacher who does not may have a great deal" (Strevens, 1973, p. 228).It is, in fact, more and more recognized that teachers of ESP need to have some knowledge of the specialist subject (Combes-Joncheray 1999, Mangiante & Parpette 2004, Gilbert 2008, Fanou 2009) even if they are not specialists of it.

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LSP students who are experts in the specialist subject concerned with in the text may identify themselves with members of the community of the specialists of the subject even in the target language since "it is often quite a challenge for L2 readers to identify and associate themselves with the characters, events, and places from the target language culture" (Alptekin & Erçetin 2011: 244-245). As such, given their enthusiasm and their knowledge of the target culture, they easily understand the ideas and the jargon used by the specialists in their own L1, or in the language used for teaching in their country, and then their literal comprehension of the text can positively impact their inferential comprehension and serve as an asset for production, especially if there is a certain degree of proximity between the two languages, e.g. two alphabetical languages such as French and English, with many identical Latin or Greek word-roots.

In the field of LSP a minimum of familiarity with text contents is indispensable in reading comprehension classes as it helps the learner to use his/her prior knowledge of the subject matter of the text to construct meaning and to interpret the text, as determined by the situation model (Perfetti, 1989), and it thereby helps in inferential processing (Fincher-Kiefer, 1992), especially in a competency-based approach (CBA) context. By identifying him/herself with members of a community of specialists, the language learner can more or less easily achieve inferential comprehension when s/he is familiar with the specific text content since this cultural membership, of which s/he is certainly very proud, can cause him/her to interpret the meaning of the text and virtually rewrite it in his/her mind (Fish, 1980). But this does not necessarily impact positively his/her production capacity as being able to rewrite a text in one's mind does not necessarily mean being able to rewrite it on paper.

The interpretation of a text may vary from one reader to another even among people that share the same values, customs and assumptions as inferential answers may also depend on shared rules of textual interpretation (Sinclair, 2004, p. 85). Therefore, for any type of reading research, it is important to take into account, not only the shared values, but also the factor of culture-specific interpretive community to address concerns about explanatory adequacy. Otherwise, as shown by Murata (2007), based on readers' answers, given to inferential questions, the same text could be interpreted quite differently by readers from different cultural groups, even resulting in contradictory answers at times (Alptekin & Erçetin, 2011, p. 245). There is therefore not a unique interpretation of a text even among people who are knowledgeable in the specialist subject concerned with in a text on business and finance for example.

In a community of economists in the United States, certain business practices might be different from the business practices in England or in an African country. So, two different communities of specialists from two different countries may form two different culture-specific interpretive communities, even if all of them share the same values on subjects such as Economics, Management, Accounting, etc. Anglo-Saxon Accounting, for example, does not apply the same rules as the *SYStème COmptable Ouest-Africain (SYSCOA)* of West African French-speaking countries. Thus a text on Accounting written in an African country or in France may not be interpreted similarly in the United States, even if it were written by a chartered accountant in that African country or in France since the accounting system, the accounting practices and the accounting culture are not identical inside all communities of accountants in the world.

METHODOLOGY: CONTEXT AND DESCRIPTION

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Context:
Given the difficulties encountered by my students in Benin university colleges or faculties in understanding the English-written teaching materials I used, especially the English-written texts, I was interested in seeing, in the framework of my PhD dissertation in 2008-2009, how they would respond to questions on a French-written text in a reading comprehension task on the stock market, with a French-written text on the "Dow Jones Industrial Average" and some open-ended questions in English.

A few years later, I decided to submit other students to the same task to see if I would get the same results as in 2008-2009 so that I could definitely deduce the impact of literal comprehension, without content familiarity, on inferential comprehension in learners' L2, with a text written in learners' L1 or in the official language (the education language) of their country. So, with a text that may be read by them relatively easily, literally speaking, I can assess their possibility to display a minimum of inferential comprehension in their productions as a result of their (supposed) literal comprehension.

Description of the reading material
The task was taken from Michael Brookes & David Horner's *English for the New Business World*, published in Paris by Belin in 2000. It is entitled "Understanding the stock market."
Content: The text (See Appendix) is written in French and is subdivided into two parts: the first part or Part A is made up of three paragraphs and the second part or Part B is made up of two paragraphs.

In the first paragraph of Part A, the authors have defined "Dow Jones" as an index made up of thirty blue-chip shares, which involves about 25% of the total value of shares quoted on the New-York Stock-Exchange (NYSE). An index is an average because at the beginning it was calculated by dividing the total value of shares by the number of shares. The first average, calculated on May 26, 1896, was 40.94. The basic calculation procedure remained the same, yet the divisor had to change to comply with some historic changes.

In the second paragraph it can be read that the index is called Dow Jones Industrial Average because it was created by a certain Charles Dow who, together with Edward Jones and Charles Bergstresser, set up a stock-exchange information agency for Wall Street professionals, Dow Jones and Company, and launched the Wall Street Journal in 1889.

In the third paragraph, it is stated that the managers of the journal decided the way some blue chips would be selected for the calculation of the index and they then selected twelve blue chips for the first calculation. The shares do not often change. However, today, only General Electric Co has survived out of the 1896 selection of shares.

In the second part, precision has been given about how the index is calculated. At the beginning the total of share values was divided by the number of shares. But nowadays, the divisor is often readjusted because of stock splits. The divisor was less than 1 in 1986 and is about 0.2 now (referring to when the text was written). But to divide by less than 1 is to multiply by a positive figure. This is one of the reasons why the index has been rising for the past few years.

Description of the task

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These are the questions:

Divide the class into 2 groups and ask them to reply the following questions:

Questions for Group A

1. What is the DJIA?
2. What are blue chips?
3. Why is the index called an average? When was the first average calculated?
4. Why Dow Jones? Why was it important to have launched the Wall Street Journal?
5. How are stocks chosen for the DJIA? Does the composition of the basket often change?
6. What were the most recent changes and what trend do you think these changes show?

Questions for Group B

1. How was the average created in 1896?
2. Using the example, explain how the divisor has to be changed because of stock splits?
3. What happens when you divide by a number less than one?
4. How does this partly explain recent movements on the DJIA?

Expected answers (authors' sample answers taken from the teachers' book):

Group A

1. The DJIA is an index made up of a basket of 30 industrial securities.
2. These securities are called blue chips because they concern substantial industrial companies with a long history of successful growth and are therefore considered to be a very safe investment.
3. It is called an average because it was originally calculated by adding up the prices of the stocks and dividing by the number of stocks. The first average was calculated on 26 May, 1896.
4. The "Dow Jones" takes its name from its founders, Charles Dow, Edwards Jones (and Charles Bergstresser), who created a stock exchange information agency for Wall Street professionals, Dow Jones and Company. They managed to launch the Wall Street Journal in 1889 - and even now the editors of the journal are the owners of the famous DJIA.
5. Indeed, the editors of the Wall Street Journal select the components of the DJIA. The "old lady of Wall Street" being traditionally conservative, the composition of the basket does not change often – for example, nothing at all was changed between 1959 and 1976.
6. The latest changes were the replacement of Union Carbide, Goodyear Tire and Rubber Co, Sears, Roebuck & Co and Chevron by Home Depot Inc, Intel Corp, Microsoft Corp, and SBC Communications. These changes show the shift from traditional industries into the world of computers and telecommunications.

Group B

1. In 1896, the price of shares was quite simply divided by the number of shares.
2. However, because of stock splits, the divisor has had to be changed.

Why? Let us examine a simplified situation where there are three firms whose stocks sell at $5, $10, and $15 respectively. The average of these stocks is obviously $10 (30 divided by 3). But imagine that the company quoted at $15 decides to distribute two free shares for each share already held (a three-for-one split). This means that an investor now has three shares instead of one, each new share being worth $5. The problem is that the average price of the three shares has fallen to $6.67 (5 + 5 + 10 = 20 divided by three) whereas the value of the shares has not fallen in real terms (each investor is as well off as before).

Therefore a means must be found to keep the average at its previous level before the stock split, i.e. $10, and the way to do this is to change the divisor (the number that is divided into

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the total of the stock price). In the present example, the divisor would be lowered to 2 instead of 3 (20 divided by 2 = 10).
3. Because of a series of stock splits, the divisor gradually became lower and lower and fell below one in 1986.
(When you divide by a number less than one, the effect is to multiply. If the divisor is 0.2, for example, the effect is to multiply by 5.)
4. This partially explains why the DJIA has been rising so steeply over the last few years.

RESULTS

I will first give the results of my first experiment in 2008-2009 and then the results of my last experiment carried out to check if they would be the same as the first ones.

Results in 2008-2009

The students in a class of *Licence professionnelle Banque et Assurance* (LP/BA) of the *Ecole Nationale d'Economie Appliquée et de Management (ENEAM)* who did the task in the school year 2008-2009 produced sentences which revealed that the majority of them did not effectively understand the French-written text on the Dow Jones Industrial Average. Even though the material was in French, the fact that the students were not familiar with the content prevented them from understanding and answering the questions by displaying enough inferential comprehension. Not only did they make many form-related errors, but they also wrote sentences that developed ideas that could not be accepted by specialists of the stock market. Obviously, they did not understand the text inferentially speaking in spite of their supposed ability "to gain some meaning from the print". As they hardly knew anything about the content, they were unable to go beyond the print and achieve enough inferential processing. The text was obviously beyond their zone of proximal development (ZPD) (Vygotsky, 1934) and its learnability / teachability (Pienemann, 1989 & 1992) was uncertain. They only captured surface code features and textbase meaning explicitly stated in the text as well as the connecting devices that bind these text constituents locally (Alptekin & Erçetin, 2011: 242).

Results after 2009

I decided to try the same experiment once again with other students of the same field, *Licence Professionnelle, Banque et Assurance (LP/B A)* in the same University College, the *Ecole Nationale d'Economie Apliquée et de Management* of Cotonou. With the same French-written text in two parts, and the same questions, I assessed the students' inferential comprehension of the French-written reading material on the Dow Jones Industrial Average. I divided the class into two groups, Group A and Group B, as suggested by the authors of the task. I consider as correct answers (CA) those that are inferentially correct no matter the errors of form, and as incorrect answers (IA) those that are not. I took into account only the ideas expressed and not the way such ideas were expressed, as I was only interested in assessing inferential understanding, and not both content and form as it was the case in 2008-2009. Here are the tables of the results:

LP/BA (2013)
Group A

Number of pairs of students: 12	Question 1	Question 2	Question 3	Question 4

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CA	06 (50%)	02 (16.66%)	07 (58.33%)	07 (58.33%)
IC	06 (50%)	10 (83.33%)	05 (41.66%)	05 (41.66%)

Table 1 showing LP/BA Group A results in June 2013

Total of correct answers: 22 out of 48
Total of incorrect answers: 26 out of 48

Group B

Number of pairs of students: 12	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6
CA	08 (66.66%)	02 (16.66%)	12 (100%)	11 (91.66%)	07 (58.33%)	10 (83.33%)
IA	04 (33.33%)	10 (83.33%)	00 (0%)	01 (08.33%)	05 (41.66%)	02 (16.66%)

Table 2 showing LP/BA Group B results in June 2012

Total of correct answers: 50 out of 72 answers
Total of incorrect answers: 22 out of 72 answers
The results of the two groups put together:
Total of correct answers of Group A and Group B: 22 + 50 i.e. 72 out of 120 answers = 60%
Total of incorrect answers of Group A and Group B: 26 + 22 i.e. 48 out of 120 answers = 40%

I decided to do the same experiment, once again, in the same year 2012-2013, with some teacher trainees of the English Department at the Higher Teacher Training College, *Ecole Normale Supérieure*, of Porto-Novo. I did it with two classes of students. Here below are two tables showing the results of the first class:

First class at the *Ecole Normale Supérieure* of Porto-Novo (September 19, 2013)

Group A

Number of pairs of students: 12	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6
CA	05 (41.66%)	04 (33.33%)	10 (83.33%)	09 (75%)	06 (50%)	08 (66.66%)
IA	07 (58.33%)	08 (66.66%)	02 (16.66%)	03 (25%)	06 (50%)	04 (33.33%)

Table 3 showing *Ecole Normale Supérieure*first class Group Aresults of September 2012

Total of correct answers: 42 out of 72
Total of incorrect answers: 30 out of 72

Group B

Number of pairs of students: 11	Question 1	Question 2	Question 3	Question 4

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CA	02 (18.18%)	05 (41.45%)	05 (45.45%)	08 (72.72%)
IA	09 (81.81%)	06 (54.54%)	06 (54.54%)	03 (27.27%)

Table 4 showing *Ecole Normale Supérieure* first class Group B results of September 2012

Total of correct answers: 20 out of 44
Total of incorrect answers: 24 out of 44
Total of correct answers of Group A and Group B: 42 +20 = 62 out of 116 i.e. 53.44%
Total of incorrect answers of Group A and Group B: 30+ 24 = 54 out of 116 i.e. 46.55%

Second class at the *Ecole Normale Supérieure* of Porto-Novo (2013)

Table of the results of Group A

Number of pairs of students: 08	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6
CA	07 (87.5%)	01 (12.5%)	07 (87.5%)	07 (87.5%)	06 (75%)	07 (87.5%)
IA	01 (12.5%)	07 (87.5%)	01 (12.5%)	01 (12.5%)	02 (25%)	01 (12.5%)

Table 5 showing *Ecole Normale Supérieure* second class Group A results of June 2013

Total of correct answers: 35 out of 48
Total of incorrect answers: 13 out of 48
Table of the results of Group B:

Number of pairs or students: 09	Question 1	Question 2	Question 3	Question 4
CA	06 (66.66%)	07 (77.77%)	05 (55.55%)	05 (55.55%)
IA	03 (33.33%)	02 (22.22%)	04 (44.44%)	04 (44.44%)

Table 6 showing *Ecole Normale Supérieure* second class Group B results of June 2013

Total of correct answers: 23 out of 36
Total of incorrect answers: 13 out of 36
Total of correct answers for Group A and Group B: 35 +23 = 58 out of 84 i.e. 69.04%
Total of incorrect answers for Group A and Group B: 13+ 13 = 26 out of 84 i.e. 30.95%
This is a table showing the percentage of correct answers and of incorrect answers in the three classes assessed in 2012-2013

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	LP/BA students	Teacher trainees (1st class)	Teacher trainees (2nd class)
CA	60%	53.44%	69.04%
IA	40%	46.55%	30.95%

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Table 7 showing the percentages of correct and incorrect answers in the three classes assessed in 2012-2013

ANALYSIS OF THE RESULTS OF 2013 AND DISCUSSION

In the three classes assessed in 2013, there were more correct answers than incorrect ones. This proves that the number of the students who understood the text inferentially is greater than the number of the students who did not. The proportion of students who understood the text inferentially was much greater than the proportion of students who understood it inferentially in 2008-2009. However, the respective proportions of correct answers for incorrect answers, of 60% for 40%, of 53.44% for 46.55% and of 69.04% for 30.95% reveal that a large number of students were unable to process the text inferentially even though the majority of them did it somehow. The literal reading of the French-written text certainly helped but it did not help enough to ensure inferential understanding for a very large majority of the students. The greatest proportion of inferential comprehenders is noticed with the second class of *Ecole Normale Supérieure* students (69.04% of correct answers for 30.95% of incorrect answers). The number of correct answers is a little more than the double of incorrect answers in this class. For a text written in French, if the students concerned were familiar with the content, the results would certainly be much better.

The students' output show that literal reading does not necessarily allow inferential comprehension and that content familiarity is a necessary condition for easy inferential understanding. Moreover, the fact that the input is written in a language that students read fluently does not enable them to become automatically familiar with the content and perform accordingly in a different foreign language.

In LSP classes, students' familiarity with content, i.e. with the issue developed in a text, will favour text deep comprehension and enable students to have better results for reading comprehension tasks. My findings "confirm the generally held view that content familiarity has a positive effect on readers' performance" (Alptekin & Erçetin 2011, p. 258) and show that no or little content familiarity cannot allow brilliant performance regarding inferential comprehension of LSP texts even if the results of my last experiments are not very poor.

CONCLUSION

The study has added further evidence that literal comprehension is not enough to perform well in interpreting a text and producing an output that shows some deep understanding of it. The French-written input has enabled the majority of the assessed students to display some inferential comprehension but the performance of a very important number of them has been poor regarding their inferential comprehension. The results would have been better if the students' environment had enabled them to have some stock exchange culture and some knowledge of the content.

The fact that the text was in French has favoured literal comprehension but this has not been enough to ensure deep understanding for all the students. A version of the text written in simple English would certainly have been better input for the learners. Some footnotes and other ways of increasing the readability of the text would have permitted more learning.

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LSP course syllabi should be related to specialist courses in such a way that students might effectively be familiar with contents as a result of their knowledgeability in their field-of-study-related courses. This will enable the students to know what the text is about and will make it easier for the teacher to teach content-related issues and also handle form-related problems.

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Appendix

Understanding the stock market
Group A Le "Dow Jones Industrial Average" est une indice qui se compose d'un "panier" de 30 valeurs industrielles appellées (sic) blue chips. Ces blue chips constituent environ 25% de la capitalisation totale des titres cotés à New York. On appelle l'indice (le plus ancien des Etats-Unis) une average, car à l'origine il était calculé en totalisant le cours des actions et en divisant ce total par le nombre des actions. La première « moyenne » de valeurs iundustrielles, le 26 mai 1896, fut de 40,94. Le principe de base du calcul reste le même, quoique le « diviseur » ait été modifié pour maintenir une continuité historique. Pourquoi « le Dow Jones » ? Parce qu'il a été créé par un certain Charles Dow qui, associé à Edward Jones et Charles Bergstresser, a fondé une agence d'informations boursières pour les professionnels de Wall Street, la Dow Jones and Company. En 1889 ils ont réussi à lancer le *Wall Street Journal*, et encore aujourd'hui les directeurs de ce journal restent les propriétaires du célèbre indice. En effet, ce sont les directeurs du Wall Street Journal qui décident de la composition de l'indice. En 1896, 12 actions étaient sélectionnées ; en 1916, 20, mais le chiffre est de 30

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depuis 1928. « La vieille dame de Wall Street » est plutôt conservatrice et les valeurs qui la constituent ne changent pas très souvent. Entre 1959 et 1976, par exemple, rien n'a changé. Néanmoins, la seule entreprise qui reste parmi les valeurs sélectionnées en 1896 est General Electric Co. Les changements les plus récents datent du 1er novembre 1999 : Union Carbide Corp. (DJIA depuis 1928), Goodyear Tire & Rubber Co. (DJIA depuis 1930), Sears, Roebuck & Co. (DJIA depuis 1924) et Chevron (DJIA depuis 1984) furent supprimées et remplacées par Home Depot Inc., Intel Corp., Microsoft Corp. et SBC Communications.

Group B

Comment calculer le DJIA ? A l'origine, le calcul était simple : les cours des actions divisés par le nombre des actions. Maintenant le diviseur est continuellement réajusté à cause des divisions d'actions (*stocksplit*). Prenons un exemple concret. Imaginons trois actions qui se vendent à $5, $10 et $15. Le cours moyen de ces actions est évidemment $10. Mais supposons que l'entreprise cotée à $15 décide de distribuer gratuitement deux actions nouvelles pour une ancienne. Ceci voudrait dire que l'action vaut maintenant $5 au lieu de $15. La valeur d'un investissement dans ces actions est restée constante ($15) mais la moyenne des cours se trouve maintenant à $6.67 et non pas $10. Il faut donc trouver un moyen de compenser afin que la moyenne puisse rester à 10, et ce moyen est de réviser le diviseur en baisse. Dans l'exemple présent, le nouveau diviseur serait donc 2 et non pas 3. Le diviseur du DJIA est passé en dessous de 1 en 1986, et se trouve actuellement aux alentours de 0.20. Mais quand on divise par un chiffre inférieur à 1, ceci a pour effet de multiplier. Donc, une augmentation de $10 des cours des trente actions du DJIA ferait monter l'indice par ($10 divisé par 0.2) 50 points. Ceci explique en partie l'envolée du Dow Jones au cours de ces quelques dernières années.

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