

For a Task-Based Pedagogy in a Medical Course to Foster Vocabulary and Aural Comprehension

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Hamza Tebbani, Université Mohamed Lamine Debaghine, Sétif 2

hamtebi@gmail.com

Abstract

This study aims to explore the students' perceptions about the strategies adopted when coping with lexical meaning related to medical vocabulary and the obstacles they face during listening-based tasks. To achieve this objective, the study deploys a quantitative approach in the form of a questionnaire applied to a sample of 40 students in the first year pharmacy branch at Farhat Abbas University, Setif. The main upshot displays convergent insights about the restricted use of listening strategies when manipulating vocabulary comprehension, in addition to poor textual and linguistic knowledge, and mismatch of tasks with the students' level. The study concludes that the transition from exploration to experimentation is recommended for further investigation.

Keywords: English for Medical Purposes, Vocabulary Comprehension, Listening, Task-based Approach.

Résumé

La présente étude vise à cerner la perception des étudiants vis-à-vis des stratégies adoptées pour identifier le sens lexical et contourner les entraves auxquelles ils sont confrontés dans les tâches de l'écoute. A cet égard, une approche quantitative, par le biais d'un questionnaire, a été appliquée sur un échantillon de 40 étudiants de première année pharmacie à l'Université Ferhat Abbas, Sétif 1. En effet, les résultats ont révélé des avis concordants quant à l'utilisation restreinte des stratégies d'écoute pour gérer les problèmes de compréhension lexicale. En outre, ces résultats reflètent aussi un manque de connaissances contextuelles et linguistiques flagrants de la part des étudiants en question. Il est ainsi utile de mettre en exergue une inadéquation criarde des tâches d'écoute proposées aux étudiants. L'approche basée sur des tâches à accomplir, que nous prônons dans cette recherche, s'est avérée plus performante dans la compréhension lexicale que les méthodes jusqu'alors adaptées par les étudiants.

Mots-clés: L'anglais à objectifs médicaux, la compréhension lexicale, l'écoute, l'approche basée sur des tâches à accomplir.

الملخص

تهدف هذه الدراسة إلى استكشاف آراء الطلبة فيما يتعلق بالاستراتيجيات المعتمدة في فهم معاني المفردات ، والعقبات التي تواجههم خلال المهام القائمة على الاستماع. في إطار هذا البحث ، تبين لنا أن نختار منهاجاً كميّاً في صورة استبيان. اعتمدنا عينة من 40 طالباً في السنة الأولى صيدلة بجامعة فرحات عباس ، سطيف. بدأ لنا من خلال النتائج آراء متطابقة فيما يخص الاستعمال المحدود لهذه الاستراتيجيات. بالإضافة إلى ذلك ضعف المعارف النصية واللغوية ، وعدم تطابق المهام مع مستوى الطلبة. وفي الختام ، فإن الانتقال من الاستكشاف إلى التجريب يعكس دراسة ذات طابع معمق.

الكلمات المفتاحية: الإنجليزية للأغراض الطبية ، فهم المفردات ، الاستماع ، المنهج القائم على أساس مهام.

Introduction

Over the span of several years, receptive vocabulary has compelled scant attention within research probes or tended to be somehow overlooked by analogy with other linguistic entities. Yet, from the late 1980s onward, manifold facets have been put forward when approaching vocabulary. Actually, vocabulary expansion boosts the potential to grasp not merely lexis but further lexical bundles, and plausibly affords accessible resources when drawing inferences across the text (Clarke et al.¹; Harding et al.²). In respect to EMP, it has grown in stature as an outstanding component due to the breakthroughs in medical province. Above and beyond, when selecting medical jargon, it is of paramount importance to understand any nuances between subtly distinct structures of the nomenclature (Laufer³; Mogull⁴; Pavel⁵)

On the one hand, unlike the synthetic syllabi that were mainly burdened with defects, the analytic syllabi as the task-based tended to deflect the focus away from implicit to explicit vocabulary learning. The approach per se has currently sprung up as a mainstay to address an emerging set of issues related to listening complexity and meaning geometry. In other words, a focus on meaning has been the cornerstone of task-based approach. In addition, within its scope, listening tasks were meant to be tailored in processing, recycling vocabulary and assessing comprehension (Hyland & Shaw⁶; Shohamy⁷; Wu et al.⁸).

On the other, the steady transition from sound perception to word recognition, from meaning construction to text comprehension within a certain context has an inextricable nexus with the brain. Accordingly, educational stakeholders need to be versed not merely in lexical-oriented approaches, but also in cognitive concepts and precepts that underpin it. Within the medical context, deeper levels of comprehension require certain mental-related processes. Besides accurate interpretations of the explicit text, thinking, reasoning, inferencing and construction of causal mental models are requisite (Schober et al.⁹). Thus, for the sake of dispelling certain misconceptions about these processes, three intrinsic taxonomies have been set forth. Basically, there is a stark contrast between cognitive, metacognitive and socio-affective strategies. Along with motivation, emotions and attitudes, the latter stand for the actions that are espoused among learners when interacting with each other. In turn, whereas metecognitive strategies pertain to

planning, monitoring and assessing, their cognitive counterparts overlap with decoding, storing and recalling (Graham & Santos¹⁰; Li¹¹; Pawlak et al.¹²). All in all, the interplay of these multi-faceted paradigms with lexis is an overload that learners need to overcome. Owing to that, this research has brought their perceptions into sharp focus.

1. Statement of the Problem

It is very common that in running English courses at the tertiary level, some specified features are more or less shared. Basically, they are neither imparted by ESP teachers nor tailored in tandem with subject specialists. They do neither cater for students' needs nor cover contents which are within their grasp. After conducting a focus group discussion (cf. appendix), issues of this kind tend to occupy profoundly the foreground of English course geared to first year pharmacy students. Therefore, to expound vocabulary, the course confines the stress on countless aspects as reading comprehension, writing compositions and oral presentations. Nevertheless, there is not much scope of listening comprehension. When performing aural-based assignments, students are baffled by vocabulary uptake and its intricacy. So, making allowance for the problem, the inference drawn is that what hampers the students' comprehension is attributable to the little acquaintance they have with the vocabulary strategies. Also, the problem accrued during listening is triggered by the paucity in linguistic and background knowledge. Unquestionably, all these disable them to interpret the denotation of lexis and subsequently impede their comprehension.

2. Purpose of the Study

Within the purview of the study under scrutiny, the purpose is twofold. First, it aims to review the students' standpoints towards the impediments they confront when engaging in aural assignments and retrieving vocabulary meaning. Second, it purports to raise the awareness among students about the affordance to handle vocabulary using strategies through three phases. In the main, probing the plausible impact of these strategies over lexical uptake is contingent upon well-elaborated aural tasks.

3. Research Questions

By taking the purpose of the study into account, the researcher tried to investigate the ensuing research questions:

1. What challenges do the students confront when negotiating the meaning of receptive lexis?

2. What are the causes underlying these challenges?

3. To what extent do they adopt listening strategies to negotiate the meaning of receptive lexis?

4. Literature Review

4.1 Vocabulary and Meaning Geometry

Across diverse disciplines, vocabulary may assume several labels which range between specialized, technical, sub-technical or semi-technical. Contrary to general vocabulary, when they occur in a certain sphere, they exhibit specific patterns of usage. As a case in point, the word 'bypass' can be deployed in distinct contexts with different meanings (in general 'detour'; in electrical engineering 'shunt'; in medicine 'operation to reroute blood' (Long¹³; Paltridge & Starfield¹⁴). Along with having Greco-Latin roots, fundamental scientific terms stand for names of diseases, medicines, chemicals and processes (Linares et al.¹⁵).

Vocabulary instruction is reckoned as one of the trickiest concerns that lie upon educational stakeholders, in all grades and domains. Within recent years, it has been gaining momentum in language-medium education and a plethora of facets has been conceived as impeding vocabulary comprehension. In addition to semantics, syntax and register, vocabulary has a close interplay with morphology, orthography and phonology. (Oakhill, et al.¹⁶; Odisho¹⁷; Wechsler¹⁸).

For the sake of attaining optimum outcomes, a spectrum of strategies should be incorporated in the curriculum. Initially, there is a firm reciprocity between vocabulary expansion and reading comprehension. When deciphering meaning, reading comprehension hinges on three processes: Retrieving ideas from the chunks of text, tying the ideas to each other, and grasping the gist of the whole text (Willingham¹⁹). Similarly, the interplay between listening and vocabulary uptake is contingent upon three phases. The latter are prediction (pre-listening), verification (during listening) and reflection (after listening). As a case in point, predicting the spelling and pronunciation of words, using the general knowledge to think about what the unknown word might logically mean, reflecting on the strategies used to achieve the answers whether correct or incorrect (Graham & Santos¹⁰).

4.2 Scientific and Medical English

Medical English has been getting a raw deal in the field of English for Science and Technology (EST) which draws upon the tenets of English for Specific Purposes (ESP). On the one hand, EST overlaps with three categories: Life sciences (as medicine and botany), physical sciences (as physics and geology), and engineering (as civil and electrical engineering) which display an array of shared features. The latter range between organizational principles, grammatical and rhetorical structures, and lexical items (Brown²⁰). In the same vein, as Wallwork²¹ maintains, scientific English is a subset of academic English that pertains to scientific realms (as mathematics, chemistry and pharmacy) instead of humanistic ones (as economics, history and philosophy). On the other, EMP courses differ according to diverse facets as Paltridge & Starfield¹⁴ assert:

- Duration (i. e. short extensive vs. long courses);
- Target audience (e.g. clinicians vs. medical researchers vs. pre-medical students vs. medical students in the clinical phase of their training);
- Medical specialty (e.g. pharmacists, chest physicians, neurosurgeons, etc.);
- Skills, genres and medical situations (e.g. English for pharmacist-patient communication, English for medical congresses, English for report/journal article writing, p. 254)

4.3 Task-based Approach

Being transpired throughout the late 1970s as a substitute for traditional structure-based approaches, the communicative language teaching afforded a new slant on language instruction. Actually, it confined the stress on a set of approaches which extended its compass. These encompass: task-supported language teaching and task-based language teaching. Distinguished by its in-depth focus, the task-based pedagogy pervades as a rigorous approach, which emphasizes learning through communication (Loewen & Sato²²). Thus, through the integration of distinct tasks, it tempts to identify the denotation of lexical chunks and thereby foster comprehension. As Long¹³ sets forth: "Tasks produce negotiation for meaning, which in turn, increase L2 comprehension." (p.346)

Actually, when tailoring vocabulary tasks, Nation²³ recommends certain strands for the sake of getting an impartial syllabus. They are fourfold:

- Meaning-focused input (learning through listening and reading);
- Meaning-focused output (learning through speaking and writing);
- Language-focused learning (learning through a deliberate study of words aspects such as pronunciation and spelling);
- Fluency development. (p.2)

5. Research Methodology

The current probe is intended to be an exploratory investigation aimed at affording a painstaking account on the informants' views about meaning retrieval when engaging in aural assignments. Based on a quantitative approach that implied a questionnaire, it prompted to elicit the strategies they adopt and the impediments they confront likewise.

5.1 Participants

As to the sample of informants, it comprised 40 first year students majoring in pharmacy at Ferhat Abbas University, Sétif. Along with being within the 18-21 age bracket, females outnumbered males by four to one.

5.2 Questionnaire

For the sake of gaining insights about the frequency use of listening strategies and the issues in fulfilling aural assignments, a questionnaire was addressed to 40 subjects. Within the compass of research, the questionnaire as an instrument expounds mainly the partakers' beliefs, agreement or disagreement towards certain statements, frequency use of strategies, using a scale of measurement ranging between 1 and 5 (Loewen & Plonsky²⁴). Initially, to accomplish the research aims, the questionnaire was designed to pile up quantitative data relying on 35 items, split up into three sections (strategies use, challenges and difficulties) and ranked according to a five-point Likert scale (ranging from never, very challenging or agree to

Always, not challenging or disagree). Insofar as the questionnaire items are concerned, they were drawn up from a variety of sources (Graham & Santos¹⁰; Siegel²⁵; Vandergrift & Goh²⁶). Eventually, prior to the distribution phase, the research purpose was illuminated and the allotted span for questionnaire completion was determined (40 minutes).

5.3 Findings, Analysis and Discussion

To manipulate the quantitative data, the SPSS (version 23) was deployed. After being set in descriptive statistical tables, the outcomes were reported and interpreted. They are as follows:

Table 1. The Challenges Encountered during the Performace of Aural Tasks

Likert Scale	Very Challenging		Challenging		Quite Challenging		N Not Challenging		Not Encountered Before	
	N	%	N	%	N	%	N	%	N	%
Understanding unfamiliar words	29	72.5	6	15	3	7.5	2	5	0	0
Understanding the general idea of the text / dialog	8	20	7	17.5	16	40	9	22.5	0	0
Understanding the specific detail of the text / dialog	4	10	28	70	5	12.5	3	7.5	0	0
Determining the boundaries between sentences, phrases, words and word parts	30	75	3	7.5	4	10	3	7.5	0	0
Determining the shift from one idea to another	8	20	20	50	5	12.5	5	12.5	2	5
Determining the shift in tone of voice	10	25	5	12.5	9	22.5	16	40	0	0
Determining the type of vocabulary (topic-related, general, academic, etc.)	7	17.5	6	15	12	30	14	35	1	2.5
Determining the type of listening strategy you're going to use (guessing meaning from context)	29	72.5	2	5	1	2.5	6	15	2	5
Type of the listening task (gap filling, true-false questions, etc.)	2	5	19	47.5	11	27.5	8	20	0	0
Length of the listening task	9	22.5	3	7.5	17	42.5	11	27.5	0	0

As the table unveils, when tackling aural tasks, the ten challenges prevail among the overwhelming majority and fluctuate proportionally between ‘very challenging’, ‘challenging’ and ‘quite challenging’. Actually, they range from the most to the least challenging as follows: understanding unfamiliar words (95%), determining the boundaries between sentences, phrases, words and word parts and understanding the specific detail of the text (equally 92.5%), determining the shift from one idea to another (82.5%), determining the type of listening strategy you’re going to use and type of the listening task (equally 80%), understanding the general idea

of the text (77.5%), length of the listening task (72.5%), determining the type of vocabulary (62.5%), and eventually determining the shift in tone of voice (60%).

In turn, making allowance for the challenges that are not encountered before, they entail three tiny proportions that stand for ‘determining the type of vocabulary’ (2.5%), ‘determining the type of listening strategy you’re going to use’ and ‘determining the shift from one idea to another’ (equally 5%). In fact, the existence of intricacies is an ample evidence of deficiencies in the use of aural strategies.

Table 2. The Causes Underlying the Challenges Encountered

Likert Scale	Strongly Agree		Agree		Strongly Disagree		N Disagree		Undecided	
	N	%	N	%	N	%	N	%	N	%
Your lack of background knowledge	20	50	8	20	5	12.5	7	17.5	0	0
Your lack of vocabulary knowledge	21	52.5	8	20	8	20	3	7.5	0	0
Your lack of grammatical knowledge	5	12.5	3	7.5	11	27.5	20	50	1	2.5
Your lack of phonological knowledge	14	35	18	45	3	7.5	5	12.5	0	0
Your ignorance of the listening strategies	30	75	6	15	2	5	2	5	0	0
Your reluctance to listening	7	17.5	1	2.5	23	57.5	9	22.5	0	0
The listening assignments aren't suitable to your language level	11	27.5	21	52.5	5	12.5	3	7.5	0	0
Some distracting factors (as noisy class, unclear recordings, etc.)	2	5	5	12.5	10	25	20	50	3	7.5

The table displays the agreement and disagreement of informants towards eight distinct issues that may emanate when fulfilling aural tasks. On the one hand, the most encountered impediments are fivefold. Actually, they are in descending order as follows: the ignorance of the listening strategies (90%), the listening assignments aren't suitable to your language level (80%), the lack of phonological knowledge (80%), the lack of vocabulary knowledge (72.5%), and the lack of content knowledge (70%). On the other, the least encountered impediments are threefold. They range in descending order as follows: the reluctance to listening (80%), the lack of grammatical knowledge

(77.5%), and some distracting factors as noisy class, unclear recordings, etc. (75%). Although they are relatively low in percentage terms, 7.5% and 2.5% account for those who are undecided about distracting factors (as noisy class, unclear recordings, etc.) and the lack of grammatical knowledge respectively. Overall, along with the deficiencies in the use of aural strategies and linguistic competences, the impediments students encounter within the aural tasks reside in the intricacy of the contents to be dealt with. This intricacy unquestionably disables them to interpret the denotation of lexis and subsequently impedes their comprehension of these contents.

Table 3. The Listening Strategies Adopted when Negotiating Lexical Meaning

Likert Scale		Never		Rarely		Sometimes		Usually		Always	
Number / Percentage		N	%	N	%	N	%	N	%	N	%
Pre-Listening	Reading the transcript	20	50	9	22.5	6	15	3	7.5	2	5
	Thinking about topic-related words	21	52.5	9	22.5	3	7.5	4	10	3	7.5
	Thinking about the spelling	25	62.5	7	17.5	2	5	2	5	4	10
	Thinking about the pronunciation	23	57.5	9	22.5	3	7.5	1	2.5	4	10
	Predicting answers to the questions that go with the transcript	25	62.5	8	20	2	5	3	7.5	2	5
	Getting ready to verify your predictions	29	72.5	6	15	2	5	1	2.5	2	5
Prediction Phase											
During Listening	Using the words you understand to get the general meaning of the text / dialog	8	20	20	50	7	17.5	2	5	3	7.5
	Listening to the words that follow or precede the unknown word	21	52.5	5	12.5	3	7.5	7	17.5	4	10
	Using your general knowledge to think about what the unknown word might logically mean	24	60	4	10	2	5	3	7.5	7	17.5
	Checking whether the unknown word did in fact mean what you thought it meant	30	75	6	15	1	2.5	2	5	1	2.5
	Using what you know about sentence structure to work out what kind of word it is (Noun, verb, adjective, etc.)	22	55	10	25	2	5	3	7.5	3	7.5
	Thinking whether the unknown word is like a word you know, and then checking whether that meaning would make sense	16	40	11	27.5	4	10	4	10	5	12.5
Verification Phase											
Post-Listening	Comparing your answers with your peers	10	25	5	12.5	6	15	7	17.5	12	30
	Checking how many right and wrong answers you come up with	3	7.5	6	15	11	27.5	10	25	10	25
	Reflecting on the strategies that you used to achieve the answers whether correct or incorrect	30	75	4	10	3	7.5	1	2.5	2	5
	Using the transcript while listening to revise your answers and check language structures (spelling, pronunciation, etc.)	25	62.5	3	7.5	7	17.5	4	10	1	2.5
	Using the key words used in the text in a productive follow-up task	29	72.5	4	10	2	5	1	2.5	4	10
Reflection Phase											

All in all, as the table highlights, the students' deployment of aural strategies along the three phases isn't strikingly extensive. In a nutshell, a preponderance of the respondents don't recourse to use these strategies or barely use them.

Insofar as the pre-listening phase is concerned, the largest percentages swing between 'never used' and 'rarely used'. As dichotomous sets, they range in ascending order as follows: reading the transcript (50% – 22.5%), thinking about topic-related words (52.5% – 22.5%), pronunciation of the words (57.5% – 22.5%), spelling of the words (62.5% – 17.5%), predicting answers to the questions that go with the text (62.5% – 20%), and getting ready to verify your predictions (72.5% – 15%).

By the same token, the highest frequencies within the ensuing phase (during listening) tend to be confined to the dichotomy (never used – rarely used). They range in descending order as follows: checking whether the unknown word did in fact mean what you thought it meant (75% – 15%), using what you know about sentence structure to work out what kind of word it is (55% – 25%), using your general knowledge to think about what the unknown word might logically mean (60% – 10%), using the words you understand to get the general meaning of the text (20% – 50%), thinking whether the unknown word is like a word you know, then checking whether that meaning would make sense (40% – 27.5%), and listening to the words

that follow or precede the unknown word (52.5% – 12.5%).

With reference to the post-listening phase, the deployment rates are dissimilar to the bygone phases. In other words, some substantial percentages reflect the informants' use of aural strategies. The latter embrace checking how many right and wrong answers you come up with (92.5%) and comparing your answers with your peers (75%). Nonetheless,

the remaining percentages display the informants' nonuse of the other strategies. In ascending order, they comprise: using the transcript while listening to revise your answers and check language structures (62.5%), using the key words used in the text in a productive follow-up task (72.5%), and reflecting on the strategies that you used to achieve the answers whether correct or incorrect (75%).

Prior to listening, it is indispensable to go through a warmer-up. Initially, the latter is a prerequisite for increasing background knowledge. Thus, it entails a reading task which permits to predict linguistic clues as whether the words stand for nouns, numbers, abbreviations, etc. and how they are pronounced and spelled, etc.

Subsequently, it is crucial to probe deeply into the metacognitive mechanisms of manipulating vocabulary while listening. For the sake of pinpointing the overall gist of the transcript, drawing on verification (whether to confirm or disconfirm the previous predictions) is of paramount significance.

Eventually, after listening, raising awareness about the strategies adopted is compulsory so as to ascertain whether they require to be adapted or altered for further similar aural tasks. Moreover, alongside rehearsing the key words (focusing on word parts, pronunciation, etc.), a productive follow-

up task is fundamental to buttress vocabulary retention.

Conclusion

At the tertiary level, imparting receptive vocabulary is imbedded within the ambit of the manifold medical specialties and pharmacy is no exception. Nonetheless, when delving deeper into the way it is learnt, many defects unfold. To pursue the line of inquiry, a thorough exploration was carried out to pinpoint the informants' standpoints about these defects. On the basis of the outcomes, a plethora of facets has been yielded as impeding receptive vocabulary processing. In the main, there was a striking nonuse of listening strategies when handling vocabulary. Alongside the lack in background knowledge, linguistic knowledge (whether lexical, phonological or grammatical), the aural assignments were not within the threshold level of the informants.

Overall, to give the probe another spin, an ongoing investigation may translate the exploration into intervention highlighting the plausible impact of task-based pedagogy over receptive vocabulary comprehension. Accordingly, in bridging theory and practice, distinct strategies (as guessing meaning from context using clues, determining the boundaries between sentences, phrases, words and word parts, etc.) can be implemented. As a matter of fact, the latter vary in accordance with the tasks to be accomplished. Otherwise, it may scrutinize the extent to which the task requirements set up a need to process receptive vocabulary, and the extent to which learners engage in endeavoring to retrieve its meaning. Above and beyond, the selection of the task-based pedagogy is not haphazard since its focal focus is meaning and vocabulary uptake is likewise about meaning.

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Appendix

Focus Group Discussion

Part 1: English Course

- 1.1 What is the nature of the English course you are undertaking?
- 1.2 Which disciplinary topics do you cover in the English course?
- 1.3 Does the English course cater for your language needs?
- 1.4 Does the English course fit your language level?
- 1.5 Which skills do you focus on when tackling vocabulary comprehension?

Part 2: Reading

- 2.1 How often do you practise reading in class?
- 2.2 Which reading activities do you perform the most?
- 2.3 What are the difficulties that you encounter while reading?
- 2.4 Do you adopt any reading strategies to cope with vocabulary comprehension?
If yes, what are they?
- 2.5 Do you carry out any follow-up activities (as writing activities) after reading?

Part 3: Listening

- 3.1 How often do you practise listening in class?
- 3.2 Which listening activities do you perform the most?
- 3.3 What are the difficulties that you encounter while listening?
- 3.4 Do you adopt any listening strategies to cope with vocabulary comprehension?
If yes, what are they?
- 3.5 Do you carry out any follow-up activities (as speaking activities) after listening?