

TEACHING MEDICAL TERMINOLOGY

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ABSTRACT

THIS PAPER INVESTIGATES THE COMBINATION OF TWO PEDAGOGIC APPROACHES INVOLVING ELEMENTS OF A PRESENT-PRACTICE-PRODUCE METHODOLOGY AS WELL AS TASK-BASED LEARNING IN ORDER TO HELP STUDENTS LEARN AND EASILY REMEMBER THE MEDICAL TERMINOLOGY. THE EFFECTIVENESS OF PEDAGOGY OFTEN DEPENDS ON THE SUBJECT TO BE TAUGHT, ON LEARNERS' NEEDS AND ON ADAPTING TO THE ON-THE-GROUND CONDITIONS IN THE CLASSROOM.

IN THE FIRST PART, WE WILL COMPARE TWO TEACHING MODELS THE PRESENTATION-PRACTICE-PRODUCTION AND THE TASK BASED LEARNING CONSIDERING BOTH EFFECTIVE TO STRUCTURING AND PLANNING LESSONS.

IN THE SECOND SECTION OF THE PAPER, WE WILL PRESENT SOME LEARNING THEORIES SUCH AS, SCAFFOLDING, ETYMOLOGY AND MNEMONICS, SOME VISUAL TOOLS WHICH HELP LEARNERS' UNDERSTANDING AND MEMORY BECAUSE IT FITS WITH THE BRAINS METHOD OF PROCESSING INFORMATION.

THE LAST PART WILL FOCUS ON THE VOCABULARY EFL STUDENTS NEED TO LEARN IF THEY FACE A REAL LIFE MEDICAL SITUATION.

KEY WORDS: MEDICAL TERMINOLOGY, TEACHING METHODS, PPT, TBL

1. Introduction

Learning is dependent on the pedagogical approaches teachers use in the classroom. A variety of pedagogical approaches are common, but some strategies are more effective than others.

Students pursuing careers in medical fields, nurses, doctors, and other medical professionals must be proficient in medical terminology, procedures, and concepts in order to work in a native-English speaking country, to advance in their present position or to solve problems in their professions.

From my experience teaching English for medical purposes I consider that, when teaching vocabulary, for example, we cannot just deliver a list of words or sentences; learner needs to acquire both the form and the variety of meanings of a given lexical item. That is why we need all kind of visual tools and games and other teaching techniques to make easier the memorization.

Ninety percents of medical vocabulary come from Greek and Latin words and can be easily separated in prefixes, suffixes and roots for being memorized. For example *amygdaleectomy* is

formed of –amygdale, the organ and -ectomy meaning excision. But words like cholera, eczema, typhus come from ancient medical theory and have to be learned individually like idioms of the language.

But how to remember a word like *pneumonoultramicroscopicsilicovolcanoconiosis* having 45 letters given as an example by Lesley A. Dean-Jones in *The Classical Journal* (1998: 292) meaning “an abnormal condition of the lungs caused by extremely fine particles of silicon dust emitted from a volcano”.

2. PPP approach versus TBL approach

The present section focuses on a comparison between two teaching models: the famous PPP (Presentation, Practice and Production) and the TBL (Task Based Learning) learner-centred approaches.

The **PPP approach** (presentation, practice, production) aims to teach a specific language form and helps students to practice the new words. Students repeat and apply the language, then practice in the form of spoken and written exercises and finally used the forms in less controlled speaking or writing activities. The PPP approach, except during the final production stage, is teacher-based.

An alternative to the PPP approach is the **TBL (task-based learning)** in which the production stage comes first, and then learners think and analyze, while teacher intervenes only when needed.

Task-based learning has three stages:

- The pre-task stage (teacher introduces and defines the topic and the learners engage in activities that either help them to recall words and phrases or to learn new words and phrases that are essential to the task).
- The "task cycle" (learners perform the task in pairs or small groups and then prepare a report for the whole class).
- The final stage is the language focus stage, during which specific language features from the task are highlighted and worked on. Feedback on the learners' performance could be also done.

Whereas the aim of the PPP model is to lead from accuracy to fluency, the aim of TBL is to integrate all four skills and to move from fluency to accuracy plus fluency.

2.1 How can I use PPP approach in the classroom?

Most of the PPP lessons follow the following structure:

-**LEAD-IN:** can be verbal (using stories, dialogues, songs) or it can be material (pictures, grammar point, audiovisual, illustrations etc). For example if we want to teach human body we can show our learners pictures with parts of the body.

-**ELICITATION:** the most common way of eliciting is to ask questions for getting as much information on the vocabulary point: how do we call this part of the body? Which part of the body we use to smell?

-PRESENTATION: can be deductive or inductive. The focus is on the form at this stage. The teacher gives example with word formation and let students discover the rule.

-CONTROLLED PRACTICE: in this stage, the focus is on accuracy, not on use or application. There should be one correct answer and teacher already knows the answer.

-FREE PRACTICE (PRODUCE): the activities during this stage are related to students' own life and there are lots of correct answers.

-HOMEWORK: teacher gives homework for students to practice what they learned. Clear instructions with details should be given.

2.1 How can I use TBL in the classroom?

Most of the task-based lessons have this structure:

- Lead-in
- Brainstorming ideas in group
- Feedback from the group
- Introducing the task
- Establishing the task
- Practice
- Feedback
- Introducing the writing task
- Setting up the task
- Task-homework

In TBL, the central focus of the lesson is the task itself. The advantage of TBL over more traditional methods is that it focuses on students' needs by putting them into authentic communicative situations, expose learners to a wide variety of language and not just grammar and it is good for mixed ability classes; a task can be completed successfully by a weaker or a stronger student.

3. So how can students learn medical vocabulary?

It is crucial to take into account your students' learning styles when teaching English language. We are giving a brief description of each style.

Auditory learners are able to recall what they hear and prefer oral instructions. They learn by listening and speaking, they are phonetic readers. They learn by interviewing, debating, giving oral reports etc.

Visual learners are able to recall what they see and prefer written instructions. They will learn by observing and enjoy working with computer graphics, maps, graphic organizers, pictures etc.

Tactile learners learn best by touching and benefit from reading. They will learn by drawing, playing board games, making models etc.

Kinesthetic learners learn by touching or manipulating objects. They remember words if they act them out and learn best by playing games, movement activities, setting up experiments etc.

As each learner has a different learning style or a mixed of styles we should think of a variety of instructional techniques to move students progressively toward stronger understanding independence in the learning process. In order to teach medical vocabulary we offer the following teaching clues:

-Use of mnemonics. Learners can memorize words by creating a sentence using the first letters of each word. To remember the carpal bones: Scaphoid, Lunate, Triquetrum, Pisiform, Trapezium, Trapezoid, Capitate, Hamate, we can create *Sam Likes To Push The Toy Car Hard*. Students can find an excellent resource of medical mnemonics on www.medicalmnemonics.com.

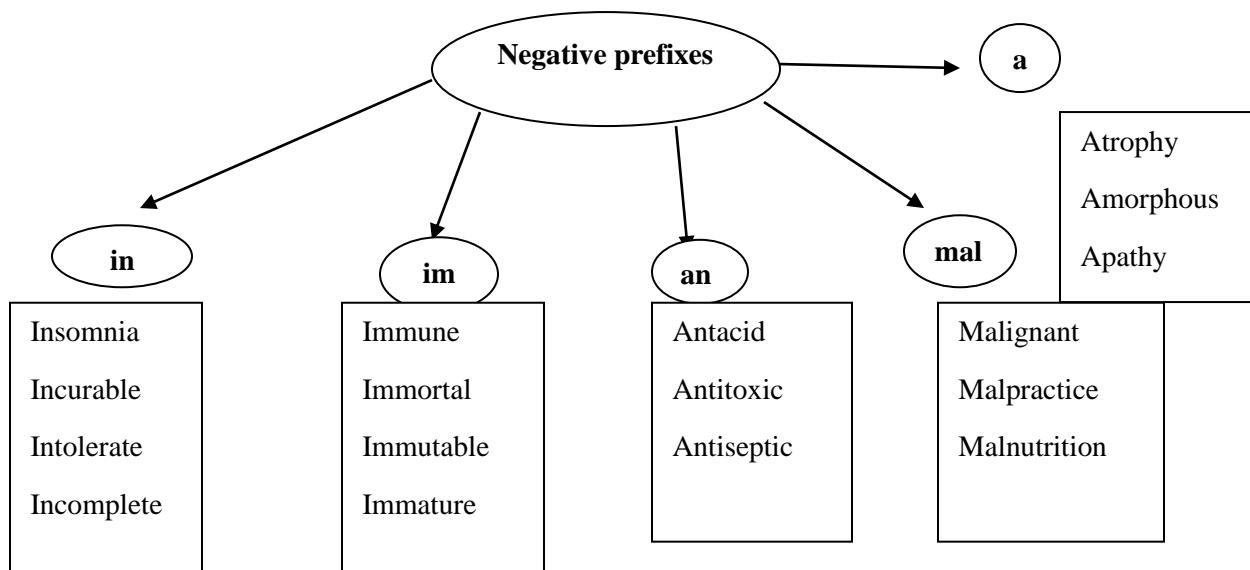
The difference between a mnemonic and an acronym is that acronyms are official abbreviations created by the International System of Units such as ACED- anhidrotic congenital ectodermal dysplasia. Mnemonics help to elicit words from long-term memory into working memory.

-Use of mind-mapping (the representation of a word in mind)

Cambridge dictionary defines the mind map like: *a type of diagram with lines and circles for organizing information so that it is easier to use or remember.*

In what follows, we will present a mind-map for the negative medical suffixes:

Figure 1- A mind-map of negative prefixes



- Use sentences never isolated words. The context is crucial for understanding how to use the word and refers to the information that is needed to make the statement meaningful.

- Learn by explanation. Students have to explain the meaning of the word in English giving synonyms or the definition of the word itself.

- **Learn vocabulary by theme.** It is easier to learn words by related themes than isolated or random.
- **Use games in class.** Game-based learning is a teaching method that allows learners to study English by games being perceived like a form of entertainment.

These are some of the most efficient techniques for teaching or learning vocabulary. The objective for teaching medical terminology is also to teach students how to decipher medical terms.

In a word we have a prefix, a root and a suffix. In the following table we present a categorization of prefixes used in medical words.

Table 1- Categorization of some medical prefixes

Prefixes-size and amount	Prefixes-numerical	Prefixes- Speed	Prefixes- Location	Prefixes-movements	Prefixes-colours	General prefixes
macro-large micro-small hyper-high hypo-low normo-normal omni-all a/an-absent megal-large	mono-single di-double tri-triple quad-four poly-many oligo-few	Tachy- fast Brady/brachy-slow	Epi/peri/circum-Around Endo/intra- inside Exo/extra-outside Inter-between Trans-across Dia/per-complete Medi-middle Para-nearby Juxta-next to	Ab-away Abduction Ad-toward Dis-to separate	Chromo-colour Leuko-white Erythro-red Cyano-blue Chloro-green Melan-black Flav-yellow	Homeo-body Cephalo-head Cerv-neck Thoraco-chest Abdomino-abdominal Pelvo-pelvic Periton-peritoneum Derm-skin Neuro-nerve Hemo-blood Arterio/angio-arteries Veno-venous Vasculo-vascular Myo/sarco-muscle Skelet-skeleton Osteo-bone Cyto-cell
Prefixes for neck and thoracic organs				Prefixes for abdominal organs		
Thyro-thyroid Tracheo-trachea Esophago- esophagus Thymo- thymus Masto-mammary glands Pulmo/pneumo-lung Cardio- heart				Gastro-stomach Hepato-liver Cholecysto – gallbladder Spleno-spleen Pancreato-pancreas Adreno-adrenal glands Nephro-kidney Entero-intestines Colo-colon		

This categorization can be organized in a mind-map or schemata or used in a bingo game.

Nurses and doctors need to be very familiar with illnesses, their symptoms, and the accompanying treatments. We thought about some topics students would need to know if they faced a real life medical situation. These topics are:

- Medical staff
- Medical conditions
- Types of pain and treatments
- Ailments and injuries
- Signs and symptoms
- Human body
- Giving direction in a hospital
- Making appointments

Conclusion

In this paper we underlined two teaching approaches and sketched some techniques for medical vocabulary acquisition. Both PPT and TBL focus on the achievement of the objectives, and then on the language that is needed to achieve these objectives. A combination of TBL, PPP and the other teaching techniques that we presented like mind-mapping, mnemonics, games etc. give plenty of opportunities for communication in authentic contexts and give learners the freedom to reflect on what they learned or need to learn. Vocabulary learning is a memory, task but it involves creative use too.

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