

Strategies and Approaches for Teaching and Learning of Medical Terminology

Gamal M. A. Abdullah

Department of English, Faculty of Languages

University of Aden, Yemen

ABSTRACT: *The teaching of English for specific purposes (ESP) courses is not an easy task for the teachers of English either as a second or foreign language. Further, the teaching / learning of medical terminology is an acute problem for both teachers and learners of medical discipline. The teachers cannot convey easily the ideas hidden in ambiguous lexemes which are derived from foreign languages other than English (i.e. Greek and Latin). In turn, the learners are frightened of long and complicated terms and they find it very difficult to pronounce, spell and understand unfamiliar forms. The present research paper investigates the difficulties encounter the learners of medicine in understanding medical terminology. It provides some strategies for the learners such as breaking down strategy , identifying the word – parts , removing affixation (pre-and post) and memorisation of eponyms (terms named after persons). The most appropriate and efficient approaches which may help in the teaching process of medical terminology are suggested such as diagnostic approach , a generative model for acquisition of medical vocabularies , using L1 in teaching L2 and other collective methods .*

Keywords: Medical Terminology, Loans, Strategies, Approaches, Breaking down .

1.0.Introduction

English is accepted as the language instruction of different sciences and technologies. It is distinguished uniquely from the other global languages, because it borrows freely and constantly from other languages (i.e. loan words), for instance, there are a lot of Arabic words introduce(d) from time to time not only in general English domain, but also in specialised areas such as medicine, pharmacology, etc. Obviously, we can witness Arabic terms as alcohol , alkali , alembic , naphtha , tartar , al-chemy , el-exir and so on . Many other languages enrich the English globe by a huge number of loans in different fields, exemplification, a lot of medical terminology or lexemes are originated from Latin and Greek because they were very popular as English widely used nowadays. Also, French, German and many other languages played and still play a very important role in supporting and promoting the phenomenon of English .Hence, English can be defined as not a language in its own right, but it is a collection of overlapping languages .Interestingly, many words transmitted to English by indirect way, that means passed from one language to another language then to English.

Serjeantson (1935:15-6) points out "some words have entered English, not by direct contact with the language which is its source, but indirectly through an intervening language. In this way many of the earlier Italian Loans come through French, the earlier loan words from the east come through Latin, many of them having already passed through Greek before reaching Latin Words travelled thousands of miles, westward from Asia to Europe, across Europe from east to west and from south to north, all round the Mediterranean from nation to nation and from generation to generation."

There is no doubt then English like any other languages serves the native speakers with a wide range of implementations in different disciplines, but it is striking to note that it serves the non-natives of English with an equally wide range of use as it is international and can be used in various fields of sciences, commerce, trade and communication between the different states of the world (Talgeri , 2004: 17) .

English is used in three varieties .First language (L1), second language (SL) and foreign language (FL), for the learners of English as an SL and FL, English is implemented in two ways : English for general purposes (EGP) and English for specific purposes (ESP). EGP provides an unlimited range of language which can be applied for various purposes without identification of particular needs or specific people (Abdullah , 2005: 68) Whereas, ESP concentrates on a restricted use of language which is designed for specific needs of a particular group of learners for example English for medical studies, English for technicians, English for airlines employees, English for agricultural learners, etc. (ibid : 47) .

English for specific purposes is one of the principal offshoots that has emerged in the last few decades and has been internationally accepted as the language of instruction of science and technology. In the last few years, the phenomenon of learning English for specific purposes has begun to appear more and more frequently throughout the process of English language teaching. Unquestionably this has become a major activity in today's highly automated world (Abdullah, 2009: 1 and Abdullah and Othman, 2010:4).

Medical English is a branch of ESP in which it is designed to meet the entire prerequisites of medical studies and profession. Medical lexicon which is the accepted international terminology of the discipline and the profession, is the prime need of the ESP learner of medicine irrespective of whether his own language is Arabic or Swahili or Hindi (Khan,1986: 146) .

The present research paper is an attempt to investigate the difficulties encounter the learners of medicine in understanding the medical terms and providing strategies, techniques and approaches for comprehending the hidden ideas in such complicated terminology.

2. Medical Terminology

Every profession or field has its own jargon, i.e. a registered or a specialised language that allows for quick and efficient communication smoothly between members of the same discipline. Practitioners of medicine and health sciences have their own jargon or particular language for medicine. Medical terminology is a specialised language used by learners, specialists and experts of medicine and health sciences. It is regarded as one of the most difficult language among all the other specialised languages in different fields. Medical language includes very complicated long terms which seem difficult to sound, spell, remember and even understand e.g. **amonasehydrocharideoympphaeoid**, **encephalomyoneuropathy**, **dermatomucosomyositis**, etc. Kenneth and Chuntana Methold (1975:6) argue "medical writing relies very heavily on a specialised vocabulary. Most of these words cannot be usefully translated or even defined. Medical writing is often so difficult to understand, it is necessary to approach it from a variety of angles if one is to understand the ideas hidden in long words and even longer and complex terms."

Further, medical language provides unfamiliar and strange words, for example some words contain triple (o) together as in **hysterosaplingoophorectomy** and others start in double (o) as in **oophorectomy**.

Furthermore, the grammatical patterns in medical context are different, for instance the plural is formed by another way different from that one in an ordinary English, many nouns do not add "-s" or "-es" in the plural, but change in vowels or the last part of the words e.g. **amoeba / amoebae**, **bacterium / bacteria**, **phenomenon / phenomena**, **protozoon / protozoa**, **fungus / fungi**, **curriculum / curricula**, etc.

2.1. Techniques and Approaches for Understanding Medical terminology

As preliminary for this section, it is important to explain what is meant by medical terminology. The word "medical" is an adjective which means areas / contexts / settings of medicine. Terminology is divided into three parts: term- = word, -in- = inside (-o-, linker) and -logy = a branch of study. Therefore, it can be deduced that the two terms mean a branch of science which is concerned with the study or understanding what is hidden inside the medical words.

There are different techniques or strategies and methods or approaches which can be used to understand the meanings of the medical terms and comprehending the ideas beyond such complicated lexemes. In the next discussion, the focus will be on the most important strategies and approaches which may help in learning and teaching medical terms.

2.1.1 Strategies

As it has been pointed out earlier that it seems not easy to learn the different source language or even Greek and Latin which offer the largest chunk of medical lexicon. A short cut to the necessary information is inevitable and, therefore, certain fundamentals of vocabulary acquisition and linguistic procedure of word formation and word analysis have to be learnt and fruitfully utilised (Khan, 1986 : 149) .

New strategies have to be formed and past techniques have to be reviewed in the interest of medical terminology and in the interest of effective teaching / learning process. One of the most effective strategies in learning / teaching medical terminology is breaking down each term into small meaningful units.

2.1.1.1. Breaking Down

It is commonly known that breaking down indicates destruction or collapse which means harmful effects e.g. breaking down a building, piece of furniture, white blood cells, anti-body protection, etc. But there is an exception in the case of breaking down the loan items into parts to explain what each element of a word refer to, when collecting such segments of the small parts leading to comprehend what notion is hidden inside such items.

The ESP learners of medicine and health sciences will be exposed to handle long and apparently difficult scientific terms like those mentioned in (2).

In the beginning , it may seem impossible to learn how to pronounce , spell and memorise these complicated terms and their meanings . The learners of medical discipline need to know the techniques for understanding the meanings of the confused forms. One of the useful strategies which can be applied is **breaking down** the loan into meaningful constituents, the meaning of each element listed separately and combing the meanings of all the units leading to comprehend the definition or the meaning of the whole terms .Once these elements have been mastered, there is no difficulty in discovering the meaning of the compounded medical terms , no matter how long it may be , for these elements over and over again in all kinds of the words used in the field of the study (i.e. medicine) .Below are some examples for applying the breaking down strategy :

a) The term **Hemangioendotheliosarcoma** can be broken down in this way:

Hem - = blood

-angi(o) - = vessel

-endotheli (o) = pertaining to endothelium

-sarcoma = a tumour , often malignant from this we can deduce that **Hemangioendotheliosarcoma** is a medical condition of a malignant tumour of the blood vessel with masses of endothelial.

b) The term *Electroencephalography* can be broken down like this :

Electr(o) - = electricity

-en - = in

-cephal(o) - = head (together en + cephalo means brain)

-graphy = writing or recording .

Therefore , *electroencephalography* can be defined as the process of recording the electrical activity of the brain .

c) The term *Hysteroaplingoophorectomy* can be analysed as under :

hyster(o) - = pertaining to the uterus .

-saplingo- = uterin tube

-oophor(o) = ovary

-ectomy = excision

The combination of the above separated elements can lead to the following definition :
Excision of the uterus (along with) uterine tube and ovaries .

d) The term *otorhinolaryngologist* is made up of the following constituents :

ot(o)- = ear

-rhin(o) = nose

-laryng(o) = larynx or voice – box .

-log (y) replaced by (- ist) = specialist or an expert in the field of study or particular medical condition.

The meanings obtained from these elements can be combined to produce the following definition : A specialist in treatment the diseases of ear, nose and larynx .

e) *Encephalomyeloneuropathy* :

Encephal (o) - = brain

-myel (o) - = spinal cord

-neur (o) - = nerves

-pathy = disease condition

A disease condition involving the brain , spinal cord and peripheral nerves .

f) *Dermatomucosomyositis* :

Dermat (o) - = skin

-mucos (o)- = mucous membrane

-hly (o) - = muscle

-itis = inflammation .

Of course, the above examples are selected randomly to explain how to use the strategy of breaking down in learning / teaching the loans , the list of the medical terminology is endless and such technique is not the only one, but there are other methods and tools which can be used to facilitate the procedure of understanding the medical terms , identifying the parts of the words as roots and affixation is important for the ESP learners of medical discipline .

2.1.1.2. Word – parts

Any word can be divided into two main parts : a)Root and b) Affixation .

2.1.1.2.1. Root

Root is the most important part of the word, it can be described as the head or nucleus of a lexeme in which the divisions and sub-divisions of the affixations can be formed. In an ordinary English, most of the words have just one root e.g. incurable, "cure" is the root. Unfortunately, the learners of medical discipline encounter an acute problem with the poly-root of one term (i.e. more than one root in one term). For example, the term analysed in the previous section "otorhinolaryngology" has three roots viz. a) oto = ear b) -rhino = nose and c) -laryngo = larynx. Therefore, it is very crucial for the medical learners to understand which elements of a lexeme are roots and which are other word parts (i.e. affixations).

Once, the students discriminate between the different elements of the same vocabulary, this will be resulted in understanding easily the assumed meaning of the whole term.

2.1.1.2.2. Affixation

Another word part is an affixation, by affixation it is generally meant additions to the word-form either initially or finally. It is sub-divided into two main parts: a) prefix and b) suffixes. Some grammarians add a third category i.e. infix, it will be explained something later.

2.1.1.2.3. Prefix

Prefix is a Latin loan consisting of two parts pre- means "before" and -fix means "fasten". The combining of the two forms means that part of the word which is fasten or added at the beginning of the word e.g. polyneuritis, the first part poly- is a prefix, it is added to the neuritis to mean "many".

2.1.1.2.4. Suffix

Suffix consists of two parts "suf-" and "-fix". The former means "after" behind or beneath and the later means "fasten". They mean that part of the word which can be added to the end of the lexeme, for instance in the above example "polyneuritis", the first part "poly-" is a prefix, the second part "neur-" is the root (i.e. nucleus) means nerves and the last part "-itis" is the suffix mean inflammation. The combination of the three elements means a medical condition in which there is inflammation of many nerves. It is worthy to point that the prefixes and suffixes can modify the meaning of the word root i.e. they can add, change or even give an antonym e.g. useful and useless, "use—" is the root and -ful /-less is the suffix, the two terms can mean the opposite of each other.

Injection	projective
Injector	projectivity
Object	projectively
Objection	projectional
	Projection
	Projector

2.1.1.2.5.2. Post – derivatives

The prefix " post " means "after " , by the compound – word post – derivative , we mean that term which is formulated by adding a suffix to the base or root. There is a huge lexemes in the medical vocabulary which are members of the post-derivative family. If we move ahead to the most important organ in the human body " cardi- " (i.e. heart) we can discover a great number of post derivatives as follows :

Cardia	cardiac	cardialgia
Cardiopathy	cardiotherapy	cardiotomy
Cardiovascular	cardiovalvular	cardiomegalay
Cardiomyopathy	cardiocele	cardiodynia
Cardioplegia	cardiography	carditis
Cardiometer	cardiogram	cardiorrhexis
Cardi opneumatic	cardiosclerosis	cardioid

It is worthwhile to explain that all the above terms are descended from one base " cardi", but they represent different classes of grammar such as verbs, adjectives and even different forms of nouns (i.e .nouns of process , nouns of medical conditions, etc). Further , the list includes different meanings i.e. synonyms and antonyms, therefore, the learners of medical studies are exposed frequently with such derivatives in different professional and academic settings. Hence, they should familiarise themselves with formulation of terms declined from particular source or root. Of course, this kind of learning strategy can be found in unlimited areas of study and in different reference books and subjects of medical discipline. For example if we take another lexeme as the terms of the nervous system, we can deduce the following huge list :

Neur-, neuro-	Neurad	Neuradynamia	Neuragmia
Neural	Neuralgie	Neuralgiform	Neuramebimeter
Neuranagenesis	Neurangiosis	Neurapophysis	Neurapraxia
Neurarchy	Neurasthenia	Neurastheniac	Neurasthenic
Neurataxia	Neuratrophia	Neuratrophic	Neuraxial
Neuraxis	Neuraxitis	Neuraxon	Neure
Neurectasia	Neurectomy	Neurectopia	Neurenergen
Neurenteric	Neurepithelium	Neurergic	Neurexeresis

Neuriatry	Neuricity	Neuridine	Neurilemma
Neurilemmitis	Neurilemmoma	Neurility	Neurimotility
Neurimotor	Neurinoma	Neurinomatosis	Neurit
Neuritic	Neuritis	Neuroallergy	Neuroanastomosis
Neuroanatomy	Neuroarthropathy	Neurobiology	Neurobion
Neurobiotaxis	Neuroblast	Neuroblastoma	Neurocanal
Neurocardiac	Neurocele	Neuroceptor	Neurochemism
Neurochemistry	Neurochitin	Neurochorioretinitis	Neurochoroiditis
Neurocirculatory	Neurocladism	Neuroclonic	Neurocoele
Neurocranial	Neurocranium	Neurocrinia	Neurocutaneous
Neurocyte	Neurocytology	Neurocytoma	Neurodegeneration
Neurodendrite	Neuroderm	Neurodermatitis	Neurodermatosis
Neurodiagnosis	Neurodokon	Neurodynamic	Neurodynia
Neurodystonia	Neuroelectrotherapeutics	Neuroencephalomyelopathy	Neuroendocrine system
Neuroenteric	Neuroepidermal	Neuroepithelial	Neuroepithelioma
Neuroepithelium	Neuroequilibrium	Neurofibril,neurofibrilla	Neurofibrillae,neurofibrils
Neurofibrositis	Neurofilament	Neurogangliitis	Neuroganglion
Neurogastric	Neurogen	Neurogenesis	Neurogenetic,neurogenic,Neurogenous
Neuroglia	Neuroglial	Neurogliocyte	Neurogliocytoma
Neuroglioma	Neurogliomatosis	Neurogliosis	Neurography
Neurohematology	Neurohistology	Neurohormone	Neurohumor
Neurohumoralism	Neurohypophysealphysical	Neurohypophysis	Neuroid
Neuroinduction	Neuroinidia	Neuroinoma	Neuroinomatosis
Neurokeratin	Neurokinet	Neurokyme	Neurolabyrinthitis
Neurolemma	Neurolemmitis	Neuroleptic	Neurolipomatosis-Dolorosa
Neurologia	Neurological	Neurologist	Neurolues

Neurolymph	Neurolymphomatosi s	Neurolysin	Neurolysis
Neurolytic neuroma	Neuromalacia	Neuromast	Neuromatosis
Neuromatous	Neuromechanism	Neuromere	Neuromimetic
Neuromittor	Neuromotor	Neuromuscular	Neuromyalgia
Neuromyelitis	Neuromyic	Neuromyon	Neuromyositis
Neuron	Neuronagenesis	Neuronal	Neuronatrophy
Neurone	Neuronic	Neuronin	Neuronitis
Neuronophage	Neuronophagia	Neuronophagocyto sis	Neuronosis
Neuronotropic	Neuronymy	Neuronyxis	Neuropapillitis
Neuroparalysis	Neuroparalytic	Neuropath	Neuropathic
Neuropathist	Neuropathogenesis	Neuropathogenicit y	Neuropathology
Neuropathy	Neurophage	Neurophilic	Neurophonia
Neurophthalmol ogy	Neurophysiology	Neuropile	Neuroplasm
Neuroplasmic	Neuroplasty	Neuroplexus	Neuroploca
Neuropodion	Neuropore	Neuropotential	Neuroprobasia
Neuropsychiatry	Neuropsychic	Neuropsychopathy	Neuropsychosis
Neuropyra	Neuropyretic	Neuroradiology	Neurorecidive
Neuroregulation	Neuroretinitis	Neuroretinopathy	Neurorrhaphy
Neurorrheuma	Neurosals	Neurosarcoma	Neurosclerosis
Neurosecretion	Neurosensory	Neurosis	Neurosism
Neuroskeletal	Neuroskeleton	Neurosome	Neurospasm
Neurosplanchnic	Neurospingima	Neurospingium	Neurostatus
Neurostearic	Neurosthenia	Neurosurgeon	Neurosurgery
Neurosuture	Neurosyphilis	Neurosystemitis	Neurotabes
Neurotachycardi ac	Neurotagma	Neurotension	Neurothecitis
Neurothele	Neurothelitis	Neurotherapeutics	Neurothlipsis
Neurotic	Neurotica	Neuroticism	Neurotogenic

Neurotization	Neurotmesis	Neurotology	Neurotome
Neurotomy	Neurotonia	Neurotonic	Neurotony
Neurotoxia	Neurotoxic	Neurotoxicology	Neurotoxin
Neurotransmitter	Neurotrauma	Neurotripsy	Neurotrope,neurotropi c
Neurotrophasthe nia	Neurotrophic	Neurotrophu	Neurotropic
Neurotropism	Neurotroosis	Neurotubule	Neurovaccine
Neurovaricosis	Neurovascular	Neurovegetative	Neurovirulence
Neurovirulent	Neurovirus	Neurovisceral	Neurula
Neurulation	Neurgic		

(Hitti and Al-Khatib , 2006:282-5)

2.1.1.3.Linker Vowel

There is a spelling point should be noticed in the breaking down process. A vowel letter is used to separate two roots or more from each other or from a suffix in the same medical term. Usually, it is the vowel (o) , but there are some rules and exceptions which can be taken into consideration when applying such a combining form (i.e. vowel "o") . When a word-root combines or joins with another root or a suffix, a vowel "o" needs to link between the two constituents e.g.

Cardiovascular = (cardi- "root 1" + linker "-o-" + -vascular "root2")

Neurology = (neur-"root" + linker "o" + -logy "suffix") .

When the medical loan contains two roots or more the linker vowel "o" is used even if the next root starts with a different vowel e.g.GastrOenterostomy .

When the suffix starts with a different vowel or a consonant letter an "o" needs to be used e.g. Cardiology .But if the suffix is initiated with the same vowel as the final vowel of the root , one of them should be deleted e.g. carditis not *cardiitis or *cardioitis .

Eventually, it is worthwhile to explain that the wisdom for using the linker vowel "o" is twofold : It helps the learners to separate between the elements of the term in order to understand their meanings on one hand . On the other hand, it helps the foreign students of English to pronounce easily the long complicated medical vocabularies , which are derived from other foreign languages as Greek and Latin .

2.1.1.4. Removing Affixation

The other strategy which may help the learners of English either ordinary English (i.e. EGP) or non-linguistic learners (i.e. ESP) is the procedure of removing affixation. By removing the prefixes and suffixes the students can assume the general idea or what the lexeme rounds about i.e. the closed meaning of the term . For example if we take the following word:

"supernaturalization " , we can do it in this way :

- a) Removing a prefix "super-" remaining naturalization .
- b) Removing the noun suffix "-tion " remaining verb naturalise .
- c) Removing the verb suffix " –ise " remaining adjective natural .
- d) Removing the adjective suffix" –al " remaining the base or the root "nature " .

Then , the student can guess or conclude that , the lexeme "supernaturalisation " is something about or related to " nature" .

2.1.1.5.Eponyms

There are two major categories of medical terms :

- a) Descriptive lexeme ,which are concerned with describing shape colour, size, functions ,etc.
- b) Eponyms : Literally means "putting a name upon " . The latter has been to honour those who first discovered or described an anatomical structure or diagnosed a disease or first developed a medical instrument or procedure . Also , some term of this kind are named to indicate the source of a drug (i.e. named after the plant in which this drug is extracted) or the source of a disease e.g. animal (Ave,2012:6).

In learning eponyms, it is useless to apply the strategies of "breaking down " or " removing affixation " , memorization is the preferable process .Some examples of eponyms can be shown below :

Ishihara test : Named after its inventor this test is used to detect your ability to see colours .

Vaccine : From Latin "vacca" means cow the source of the disease ,because the cowpox virus transmitted to man from cattle .

Ephedrine :A drug used in treatment of asthma . the name came from the source i.e. ephedra plant .

Morphine : From French "Morphens " ancient Roman god of sleep .

Nicotine : Named after a French diplomat (Jean Nicot), who first brought tobacco into France (Longman Advanced American Dictionary ,2007: 1036,74)

Addison's disease :Named after a physician, a disease due to under functioning of the adrenal glands characterised by low blood pressure, anemia, mythenia ,gastric upsets and pigmentation of skin .

Meniere's disease : A disease of the inner ear characterised by attacks of vertigo .

Parkinson's disease : Paralysis resulting from loss of muscular control .

2.1.2. Approaches

There are several approaches which can be used in teaching /learning process of medical vocabulary, in brief, the next discuss will focus on the most important methods .

2.1.2.1. The Diagnostic Approach

Among the several methods designed and fruitfully applied, experience has shown that the diagnostic approach is one of the preferable methods to the rest of discovering communicative difficulties directly related to target-situation needs. A subject specific ESP programme like medical English can utilise the diagnostic approach where by the learners can taught directly in terms of the problems revealed by the diagnosis .Joan and Richard Allwright (1977 : 60) suggest " a diagnostic approach can be used in the classrooms of medical learners to promote meaningful clinical problem – solving ". They add " vocabulary items are vital to a particular topic must be reading available to keep the process of communication going " (ibid).

2.1.2.2. A Generative Model of Medical Vocabulary Acquisition

The designers of this approach claim that it teaches a lot of things through little efforts. It is based on a) certain principles and b) carefully chosen language elements. These two categories can be explained in more details below:

A . Principles : (1) Learning to look analytically at word-form .

(2) Recognising the underlying stems through the application of the knowledge of affixation ; recognizing the related forms and the changes resulting from affixation leading to corresponding differences in the syntactic function ; developing word-analysis insights by manipulating prefix-root suffix elements .

(3) Discovering the meaning of the whole by an analysis of the parts; moving from word-analysis to word building i.e. from word to definition and from a given definition to building an appropriate word.

(4) Discovering the meaning of strange, unfamiliar elements/ words by establishing meaningful association.

B. Elements: (1) Affixes producing grammatically classed words.

(2) General suffixes attached to a number of words , adding special meaning to the same radical ;

(3) Combining forms used in the formation of compounded forms of specialist use ;

(4) Carefully, selected root forms .

The model of the generative vocabulary will take the following operational procedure:

Stage I Memorisation of the selected roots and other word-elements (most of the memorisation will be reduced by developing skills of meaningful associations);

Stage II Identification of the elements making up the word, e.g. roots, stems, affixes etc.

Stage III Application analysis of the parts of a word leading to its definition; building words as per definitions given in 2.1.1.1.

Stage IV Generalisation producing word- forms not specifically learnt .

For Example , we can recognise the formative elements in the structure of a word, analyse the word-form into its component units, produce the meaning of each unit separately and then combine the root-affix meaning to arrive at its definition :

(a) INJECT In- = inside

-Ject = throw

The full definition is to throw inside (to inject a syringe)

(b) OBJECT ob- = before , against

-Ject = throw

It means to throw against (thrown before the mind)

(C) PROJECT Pro- = forward

-Ject = throw

The combining of the two elements mean to throw forward (an image , plan, idea etc.)

(Khan , 1986 : 162-5)

2.1.2.3. Using L1 in Teaching L2

Some new trends claim for the argument of using L1 in teaching L2 , in some situations of language teaching, emphasised in teaching specialised English vocabulary (i.e. ESP vocabulary) . Swan (1985: 96) claims that " the mother tongue is a central element in the process of learning a foreign language , why it is so conspicuously absent from the theory and methodology of communicative language teaching ? Why is it so little attention paid, in this and other respects , to what learners already know? "

Chapman (1958 :34) "an early defender of L1" argues " there is no open Method (with a capital M) which excels all others ... plain commonsense should indicate that the mother-tongue has its place among these methods "

The learners of medical discipline handle a lot of ambiguous and complicated loans which are derived from foreign languages (Greek and Latin) before they arrive to English that means they pass through three languages Greek/Latin → into → English → then into → Arabic . Therefore , such learners necessarily need to be exposed to benefit from their mother-tongue , but this use should be controlled by the limitations of place and time (i.e.in particular settings) .Atkinson (1993: 2) integrates communicative methodology with selective and limited use of L1 . He notes : " It is impossible to talk of a right balance or a perfect model for using L1 ... It is not

that simple . L1 can be a valuable resource if it is used at appropriate times and in appropriate ways " .

Othman and Abdullah (2011: 6-7) observes four reasons for using L1 by Arab teachers of English : (a) for classroom management i.e. giving instruction to the student , maintaining discipline, etc (b) to elicit responses from students ,(c) for explaining vocabulary / word meaning and grammar and (d) for error correction.

2.1.2.4. Collective Methods

The previous approaches are not the only tools which can be used in teaching or learning medical terminology. The practitioners of ESP as medical discipline can adopt and integrate other collective methods depending on the prerequisites of the contents of each topic in the prescribed textbooks or recommended references .Some selected methods can be utilised in teaching medical vocabulary, some of these methods can be summarised below :

Maclean (1975 : 21) provides another angle to the study of vocabulary in medical texts.... she prefers to divide the subject according to " the compartments of the body, organs and systems " and to select vital terms there from in order to present vocabulary lists classified into grammatical categories like verbs, adjectives, prepositions etc, commonly used in relation to them. Maclean 's suggestions point to a useful direction in the compilation of vocabulary lists. Brasnett (1976 :58) presents "unfamiliar features of the kind of scientific English used in medical texts " and focuses upon both vocabulary and structure. He also provides lists of " useful and frequently occurring " terms in relation to "research in laboratories, general practice , hospitals, etc. Parkinson (1976:32) chooses case histories, as he believes they provide " a valuable teaching aid" from different departments like " chest , psychiatry , gynecology and pediatrics" for review and listing of vital medical terms .

3. Conclusion

As it has been pointed previously, this study investigates the difficulties encounter the ESP learners of medicine in understanding unfamiliar , long and complicated terminology. It provides modest insights for both learners and practitioners. In respect to the learning process, some strategies are displayed such as breaking down the terms into meaningful elements, then combining such constituents leading to comprehend the definition of the whole term, another strategy was explained that is identifying the word-parts (roots and affixes), also removing the additional parts pre-and post can help in understanding and learning new medical lexemes . Some terms cannot be broken down , they are considered as one mass , because they are named after persons, plants or animal, memorisation is the preferable procedure for learning such vocabularies. Regarding the teaching process, the most appropriate and effective approaches are

suggested such as diagnostic approach , generative model for acquisition medical vocabularies, using L1 in teaching L2 and other collective methods are provided .

References

- Abdullah , G.M.A.(2005) *Needs of ESP Learners for Practical English Communication : A case Study of First Year Students at the Medical College , University of Aden*. Unpublished Ph.D. Thesis , Pune university ,India .
- _____ (2009) *English for Specific Purposes : A reviews of Developments and Current Implementation*. Indian linguistics Journal vol.7 No.1-4 pp 1-6 .Pune : Deccan college.
- Abdullah . G. M .A. and Othman, S. A (2010) *English Needs of Students and the Course Materials in Use at the Faculty of Pharmacy, University of Aden, Yemen*. Al-Tawasul Refereed Research Journal , Issue 24 . Aden : Aden university Printing and Publishing House .
- Allwright , J.and Allwright , R.(1977) *An Approach to the Teaching of Medical English* in Holden (ed) *English for Specific Purposes* pp 58.66 .London : Modern English Publications .
- Atkinson , D.(1993) *Teaching Monolingual classes* . London: Longman .
- Ave ,G.(2012) *Medical Terminology* . [On line] Available: [http://www.Des Moines . 1A50312 info @ dmu .edu](http://www.DesMoines.edu) .
- Baalbaki , R.(1997) *A Modern Arabic – English Dictionary (10TH ed)*. Beirut : Dar El –Ilm lilmalayin .
- Brasnett , c.(1976) *English for Medical Students* .London :Methuen.
- Chapman , L.R.H.(1958) *Teaching English to Beginners*. London :Longmans , Green and Co.Ltd.
- Hitti , Y.K.and Al-Khatib , A-(2006) *Hitti's New Medical Dictionary (4th Edition)* .Beirut : Librairie du Liban.
- Khan , F (1986) *ESP and the Teaching of Medical English Vocabulary*. Unpublished Ph.D. Thesis , Department of English , Aligarh Muslim University , India .
- Longman. Advanced American Dictionary* (2000) Essex : Pearson Education Limited.
- Macleane , J.(1975) *English in Basic Medical Science (English in Focus Series)*. London : Oxford University Press .
- Methold , K. and Methold , C. (1975) . *Practice in Medical English*. London : Longmans .
- Othman , A. and Abdullah , G.M.A.(2011) *Using L1 in Learning L2* . Al-Tawasul Refereed Research Journal , Issue 25 . Aden : Aden university Printing and Publishing House .
- Parkinson ,J.(1976) *A Manual of English for the Overseas Doctor* . Churchill : Livingston .
- Serjeantson , M.S. (1935) *A History of Foreign Words in English*. London : Routledge and Kegan Paul .
- Swan ,M.(1985) *A Critical Look at the Communicative Approach* . English language Teaching Journal , 39/2,95-101 .
- Talgeri , P. (2004) *Globalization and Proliferation of English in India*. Asian Quarterly : An international Journal of Contemporary Issues , Vol . 2 : 5-6 , August 2004 .