

Medical Terms of Greek, Latin and Communication Strategies

ISBN: 978-620-0-31652-3

Publication

of

Grace Hui chin Lin

Adjunct Assistant Professor, National Formosa University

林慧菁

LAMBERT ACADEMIC PUBLISHING

2019/09/17

The title of the article: Medical Terms of Greek, Latin and
Communication Strategies

This study has been conducted within the theoretical frameworks of *Interlanguage Communication* by Faerch and Kasper (1983). It contributes to the Medical terminology field associated with Linguistics fields. Also, Lin appreciates the medical majors at a Taiwanese Medical University for providing the precious data in this book.

Medical Terms of Greek and Latin to be interpreted by English and Communication Strategies

Grace Hui Chin Lin

Language Teaching Center,

National Formosa University of Science and Technology

Abstract

This linguistic research introduces Communication Strategies (CS) which can be applied to interpret medical terminologies. Jeffrey Cordell (2019) mentions using computer interpretation is also a good way to make the terms being displayed and interpreted by certain apps.

This study focused on humanized environment of clinic or hospital that highlights the importance of goal of communication (Mai, 2019), and jargon fluency in the

medical work place, such as clinics and hospitals. In medical treatment processes, medical doctors and nurses need to communicate in a comprehensible way. However, some terms that are in Greek or Foreign Languages might not be easily understood easily.

At this moment, some paraphrase, explanation and circumlocution should be applied. That is to say, communication strategies can compensate the defect not all terminologies can be realized by the medical professionals.

In a medical university in central Taiwan, 144 medical students of medical majors and medicine majors had learned communication strategies and then revealed Taiwanese/Mandarin examples after training. Two sets of communication strategies were introduced to the participants, who were taking Freshman English courses.

After training their interpretations and translations for the medical terminologies were provided to the researchers for analyzing. By the facilitated languages based on known

knowledge of physiology, biology and medicine, the 144 medical freshmen can interpret intricate terminologies smoothly and comprehensibly.

Before data collecting the strategies actually had suggested them, before standard jargon can be maturely and sufficiently developed and accumulated in mind, strategic language is a short cut to communicate in work places, tolerably, appropriately and intelligibly.

In Interlanguage Communication, five important usages were mentioned by Faerch and Kasper (1983), including (1) Topic Avoidance, (2) Message Abandonment, (3) Meaning Replacement, (4) Interlanguage, and (5) Cooperation Strategies.

The first two belong to the Reduction set, and the rest belong to the Achievement set. The above usages can be practically applied in semi-formal medical working place vocalizations when standard terms are challenging. The first two unaggressive strategies suggest to the nonthreatening

dialogues, simply deciding to keep silence and change the monotonous topics. The latter contains three more aggressive strategies.

The results of this study display the clear interpretations of medical terminologies by taught communication strategies at medical universities. This study implies medical faculties and majors should learn communication strategies in order to handle situations that the doctors and nurses need to discourse in a professionally fluent way.

Keywords:

Interlanguage; strategic competence; communication strategy; medical jargon; qualitative study; intercultural communication

Introduction

Medical terminology is a field noticed by some linguists. For example, Mazur (2017) has written a book titled “*Contemporary Medical Terminology 2017: Root words, prefixes, suffixes, and mechanisms of action*”. It introduced the “contemporary concepts, terms, phrases, phrasings, prefixes, suffixes, root words, related terms, abbreviated forms”, and so on for medical majors and also for field workers related to hospital. In fact, lots of the medical terms are resourced from Greek and Latin.

Therefore, the some terms are hard to remember for the beginners. For passing the transition period of learning the terms to be mature and sophisticated, communication strategies can be applied by the medical majors, especially for freshmen. Communication strategies suggest to simplified the difficult word by paraphrasing, circumlocution and interpretations, instead of directly use the complex terms. The strategic communication can

reduce the distance between the interlocutors, including patients, doctors, nurses and field workers in the clinic and hospital.

Communication strategies are simplified ways of communication for all people who do not know the complex Greek and Latin. Using several words or even numerous sentences can make a difficult terms interpret and explained. This article persuades the beginners of the term users to use communication strategies whenever they feel the terms are hard to express or to remember.

The terms can be replaced by some simple generalized or simulation words for better comprehension. This article suggests Faerch and Kasper's (1987) two sets of reduction and achievement strategies can be applied for understandable comprehension. The following parts explain what the strategies are.

First, the Meaning Replacement encourages the general expressions can substitute the perfect terms, allowing the ongoing colloquial contents to be sustained. Subordinate words or general expressions can replace standard and precisely detailed jargon.

For example, saying “cook” to represent “cuisine”, or “vegetable” to represent “lettuce”. Saying red root to present “carrot” and white root to present “radish”.

Secondly, the Interlanguage Strategy applies the rhetorical techniques by generalization, paraphrasing, coinage of new words, and restructuring in flexible linguistic approaches. For instance, using “pipe” for “water pipe” (Approximation) and using “air ball” to refer to “balloon” (Word Coinage) recommended by Tarone (1980, p. 429).

Moreover, interlocutors can use “My tummy is empty.” to refer to “hunger” (Restructuring). Thirdly, Cooperation Strategy suggests conversers appeal assistance by resorting to eliciting supplementary explanations from discussers. Instead of keeping quiet and deciding to abandon further colloquial interactions, they may request the dominant partners for deeper linguistic clarifications by inquiring “What does that word mean?” Or to do deeper study by saying “What do you mean by your sentences?” “Do you have any field theoretical foundation to clarify?”

In other words, the strategic usages can be applied as a medical terminology plan, by which foreigners can communicate in a mutual understandable way. They can interpret and clarify the medical jargons that are hard to be memorized due to the are usually Latin or Greek. Strategically simplified jargon can be produced by non-native medical majors or interns and nurses to decode and explain the human organs, medical components, disease conditions, physical status, or science-based treatment behaviours.

In fact, numerous medical terms are based on the multilingual knowledge, due to multinational medical treatments. For novice medical students or infirmery interns, they might feel burdened to vocalize the foreign languages of Latin or Greek, in urgent first aid situations. More seriously speaking, if the medical doctor or nurse insist to express in an elegant way of Latin or Greek, some patients would die, due to the golden timing of rescuing could pass immediately.

Based on fundamental medical knowledge, and intermediate proficiencies, strategic messages can impeccably be created and comprehended using communication strategies, by colleagues and patients in the health centers, sanatorium and clinics. All over the world, the simple English can be easier understood and it does not matter if the Greek or Latin words can be pronounced, since strategically simple words can be easier caught and realized. For saving life, the author Lin, believe that all medical doctors should communicate by the strategic usage first.

This study regarding to Linguistics and Medical fields, was conducted in a medical university of Taiwan, which is China Medical University in Taichung and Yunlin. Being assisted and taught by the instructor Grace Lin, as well as the researcher majoring in Linguistics and Teaching English as a Second Language (TESOL), the interns of PhD students, Master students, and university medical majors were able to communicate in fluent English to explain medical situations. The golden time of saving

life can be caught and the students can do a good job in English in any nations that need medical services. The school always encourages the students to do volunteer task in Africa since they could feel proud they have some ability to heal the world.

The researcher Grace Lin had demonstrated how to apply the linguistics usages and make the medical communication related to any words of medical terminologies, professional, understandable, and fluent, even though the terminology in Latin or Greek were not remembered. The researcher emphasize to say arduous and demanding words actually make things worse and the patient in emergency could due to have less understanding.

In Taichung, the students learnt how to be professional like and to clearly interpret the terminologies, using the five strategies taught, and they actually were reminded not to pretend or too proud saying Latin or Greek in front of patients, and they should practically use their knowledge to help their patient and communicate with them using the simple phrases, circumlocutions and replaced sentences.

The medical majors, especially those who need to work in their Freshmen's year, as well as the early stage of their medical study. should know how to sophisticatedly interact with their colleagues and patients in a confident attitude. The teacher, Grace taught them, they can be native-like using limited linguistics accumulations. Since the paraphrases and word-coinages can help them to apply their accumulated vocabulary to expand the limited linguistics language for practical usages.

So, before they are able to in time, memorize the Latin, Greek or any specific terms, they remain to be professional like and self-reliant and can completely express the terminologies by the taught usages, to express Latin or Greek, that they cannot remember at the early time. Being young and non-native like might not a big deal, if they really need the job related to Medical fields. As long as they believe what they are doing is not for making money or attempt to fit the unknown goal their supervisor mentioned, they can use the communication strategies to be very proficient-like.

The medical majors had assisted the researcher Grace Lin to fill a research gap, where medical jargon was interpreted using Interlanguage or simplified languages by paraphrasing, word coinage, or circumlocutions.

The Greek or Latin turn to be no more obligatory or really needed in situations that the medical field-workers' linguistics accumulation have not been accumulated sufficiently. This study argues the patients themselves should be situated under an environment where all language used can be heard and understood by themselves.

The paranoid and fearful Psychological status, such as feeling being forced to be treated by some methods they don't like, or dangerous medical situation would not happened, whenever, the communication strategies can be applied in hospitals.

Literature review

Other classifications were developed based on dissimilar classification methodologies, such as verbal/non-verbal (body language), substituting/reconstructing, first/second language, or achievement/abandonment intentions. First, Tarone (1977, p. 194-203) named nine strategies, similarly with Faerch and Kasper's (1983) classification. Elaine Tarone (1983, p. 92) demonstrated a model of word coinage using, "air-ball" to referring to "balloon". Secondly, Blum-Kulka and Levenston (1983) classified learners' possible motivation for avoidances, including 1. Phonological avoidance, 2. Graphological avoidance, 3. Morphological avoidance, 4. Syntactic avoidance, and 5. Avoid avoidance. (1983, p. 123-124)

Thirdly, Paribakht (1985, p. 132) perceived and investigated more than twenty of them, such as in terms of "linguistic approach, contextual approach, conceptual approach, and mime". Last, the University of Nijmegen in the Netherlands (Kellerman *et al.* 1987)

provided a cognitive, process-oriented classification, which has sorted strategies into conceptual and linguistic strategies. Then, Poulisse (1993) based the Psycholinguistic model to draw a distinction between conceptual and linguistic levels. This classification consists of substitution, substitution plus, and reconceptualization. In this stage, the usages were not broadly applied in textbooks. However, in international situations where English and foreign language are needed, the simplified discourse through above strategies can be easily found.

Later, the strategic usages can be found in schools, due to the Teachability (Dornyei, 1995) issues were displayed in the literatures. Therefore, more and more teachers from elementary schools to university apply the strategic usage in their language plans. Not only in the textbooks had adopted the usage of explain complex terms, but also they speaks in the facilitating way, while they plan their lectures for students.

Littlemore (2003) analyzed the collected data in French English learners' transcripts after this language issue had been fully discussed, and classified them by six substitution strategies, applying to linguistic analysis methods of original Analogical/Metaphoric comparison. They are: 1. Conventional Analogical/Metaphoric Comparison, 2. Literal Comparison, 3. Word Transfer with Second Language Word Approximation, 4. Super-ordinate and Simple Word Transfer, 5. One Substitution plus strategy applying Morphological Creativity of the Target Language speakers, and 6. Five Reconceptualization strategies applying diverse Linguistic Analysis perspectives of

- i. Componential, ii. Functional, iii. Activity, iv. Place, and v. Emotion.

Simultaneously, Littlemore (2003, p. 339) mentioned "...it is better for a student to at least begin to attempt to describe an item, or whether it is better for them to give up before even trying."

In fact, contemporary studies investigate strategic effectiveness and the learners' performance characteristics. Nakatani (2005) provided evidence C.S. training indeed improve learners' performances even on proficiency tests. Lam's (2006) study confirmed Nakatani's (2005) results. Moreover, Kaivanpanah *et al.* (2012) examined the Using Frequencies across various proficiency levels. Also, they investigated the effects of task genres and the differential use features between two genders.

Methodologies

Study purpose

To display strategic samples, offering junior medical field workers a transitional approach to professional standard expressions. Also, to fill a rare research gap which combines strategic communication study and professional knowledge to do

research. This study contributes to a firsthand linguistic investigation from a view of medical terminology. In other words, the results associated two fields can be valuably updated literature for both linguistics and junior medical doctors.

Research questions

1. How do Taiwanese medical students decode medical jargon?
2. What are the applicable examples?
3. If all terminologies in medical field can be interpreted by Communication strategies?

Participants

In three classes (N=38, 57, 49) of two Freshman English courses and one advanced writing course, the undergraduate (N=141) and graduate-school students (N=3) were trained by Faerch and Kasper's (1983) taxonomy for thirty-six hours in a year (18 weeks in two semesters=72 hours). The strategic teaching and learning occupied 50% of the time. The students were from

different medical colleges, including Medicine (2%), Dentistry (11%), Chinese Medicine (5%), Pharmacy (43%), Public Health, Health Care (15%), and Life Science (24%). Their first languages included Mandarin (49%), Holo/Hokkien (27%), Hakka (14%), and the rest (10%) were Taiwanese Indigenous as well as Bahasa Melayu (3%), Cantonese (8%), and Korean (1%).

Instruments and data analyses

In the beginning of this study, the human organ graph for five pages were given to students to study. The 144 participants needed to find each terminologies and thought of how to interpret them by strategic plans. The instruments also included the teacher's medical dictionary in her electrical dictionary. It provides sample terms and the teacher's strategic plans, displayed to all students while assigning them to do the same works.

At the end of study, the strategic data were submitted in forms of final exam reports. They interpreted professional organ or disease jargon found from textbooks. The Appendix exhibits the

philological health language productions. It is anticipated the infirmaries or clinics can also demonstrate these temporarily transitional types of articulations to patients.

Assumption

1. Students might recognize them as transitional ways to converse in the earlier stage of their medical career.
2. Students could achieve understandings of the medical knowledge, while interpreting the terminology focused.

Limitation

The students were not limited to interpret medical jargon from Greek, Latin or Taiwan/Mandarin, so the samples are randomly selected by students and not from a complete glossary.

Results and discussion

The 144 students majored in diverse medical departments, obtained the strategic usages by listening to the teacher's lectures for 20 minutes per week. The teacher brought her electrical

dictionary of medical terms and looked for the terms that students were interested in. She executed strategic plan demonstrations in front of the three classes of the medical school in Taiwan. The teacher also compared her strategic plans by diverse strategic applications, with her students in six classes of China Medical University in Taichung, whose medical major was related to that certain terms. The students enjoyed feeling erudite as a medical field-workers by using communication strategies.

The results showed the students learned strategy plan to apply in medical situation with their positive attitudes, feeling non-pretending or too proud in front of patients. The sounding by the five strategies was fluent and positive.

At the end of the second semester, they agreed to be tested by submitting twenty interpretations, based on a free material (a body graph with all human organs) the teacher had given them, on final exam papers. The students were able to explain their knowledge by simple sentences without saying Latin or Greek. The teacher had also learnt a lot from her students.

The students' scores of semester study were according to their performances of the strategic plans. The researchers had found the students can apply differentiated language plans by communication strategies in their separated medical majors.

Beside providing free materials of proficiency tests that all students need to prepare for their national medical licenses, the graph of organ also provide important information and medical knowledge to students for free. At the end of this study, 2/3 students were happy to give high scores of teacher evaluation to the teacher so the teacher was continuously invited to stay and teach in the same medical school. However, the teacher due to contributive need, she decided to quit and teach in a school that might need her more than the noble medical school.

After grading the more comprehensive examples with higher scores, the results show the medical majors can diligently interpret the knowledge they know related to the Latin and Greek. The data were collected sufficiently however, most of them turn to be similar after their discussions in and out of class. The following

example were randomly selected ones, are revealed in the following table. Due to Mandarin is still a first language in Taiwan, the data show the terms in bilingual, English/Mandarin, and their Latin and Greek, related to the terms and the created usage formats.

Results of the Strategic Speech Productions

1 Western Medical Terminology			
Standard	Jargon	Hanyu	Strategic Examples
Terms		Pinyin	
	抗生素	Kàng Shēng	Germs/Virus Resisting
Antibioti		Sù	Medicine
c			(Word Coinage in
(French:			Interlanguage Strategies)
antibio			
tique)			

Antidiure- tic Hormone (ADH) (Ancient Greek: ὄρμη horme, ὄρμάω hormao ὄρμῶ)	抗利尿 激素	Kàng Lì Niào Jī Sù	Urine Output Controller (Word Coinage in Interlanguage Strategies)
Arthro- graphy (Ancient Greek: joint + -graphy)	關節 攝影	Guān Jié Shè Yǐng	Articulation Video (Word Coinage in Interlanguage Strategies)
Autism	自閉症	Zì Bì	Someone feels scared

(Ancient Greek: αὐτός + Greek: - ismos)		Zhèng	when getting alone with to the other people. (Activity Paraphrase, Restructuring in Interlanguage Strategies)
Blepha- rospasm (Greek: blepharo(n) eyelid + spasm)	眼瞼 痙攣	Yǎn Jiǎn Jìng Lüán	Eyelid Spasm (Word Coinage in Interlanguage Strategies)
Bromo- criptine (Greek: brōmos+ kryptos)	溴隱亭	Xiù Yǐn Tíng	It can reduce the secretion of some hormone. (Restructuring in Interlanguage Strategies)
Bulimia	貪食症	Tān Shí	1. A disease a person does

(Greek: boulimia)		Zhèng	not feel like to eat anything (Restructuring in Interlanguage Strategies) 2. Can't stop eating (Use Simpler Words by Meaning Replacement)
Charcot's Joint Arthropathy (Neuropathic Osteoarthro pathy)	夏科氏 關節	Xià Kē Shì Guān Jié	Arches' Bone Disintegrate (Approximation in Meaning Replacement)
Cardiopul- monary Resuscitatio n (CPR) (Ancient	心肺 復甦術	Xīn Fèi Fù Sū Shù	A rescue skill for shock (Activity and Componential Paraphrase in Interlanguage Strategies)

Greek:

καρδία+

πλεμόνι)

(Latin:

resuscitāre)

Cerebral

腦性

Nǎo Xìng

Unconscious Brain

Palsy

麻痺

Má Bì

(Word Coinage in

Spasticity

Interlanguage Strategies)

(French:

cérébral)

(Ancient

Greek:

παράλυσις)

(Greek:

σπασμός)

Electroence- Phalogram (EEG)	腦電圖	Nǎo Diàn Tú	Brain Waveform (Word Coinage in Interlanguage Strategies)
Divergent Strabismus (Latin: dis- and vergere) (Greek: strabismus)	斜視	Xié Shì	Crossed Eyes (Word Coinage in Interlanguage Strategies)
Fludrocortisone (Ancient Greek: 9 α - fluorocortisol)	離子 類固醇	Lí Zǐ Lèi Gù Chún	It is necessary to maintain blood pressure. (Restructuring in Interlanguage Strategies)

Gigantism	巨人症 Jù	1. A symptom which
(Ancient	Rén	makes our body
Greek:	Zhèng	abnormally giant
γίγας gigas)		(Restructuring in Interlanguage Strategies)
		2. Abnormal Giant (Word Coinage in Interlanguage Strategies)

Glucagon	昇糖素 Shēng Táng	Sugar-energy Transferring
(German:	Sù	Substance
glukagon		(Meaning Replacement by Use General Abstract Expression)
from		
glucose,		
from French		
glucose,		
glucose +		
Greek agōn)		

<p>Graniopha- ryngioma (New Latin, from crani- + pharyng- + -i- + -oma)</p>	<p>顱咽 節瘤</p>	<p>Lú Yàn Jié Liú</p>	<p>1. It is a kind of cancer, which can lead to headache and reduction of eyesight. (Function, Componential, Activity Paraphrase in Interlanguage Strategies)</p>
<hr/>			
<p>Hammer Toe (Proto- Germanic: hamaraz) (Old English: t̄a)</p>	<p>錘狀趾</p>	<p>Chuí Zhuàng Zhǐ</p>	<p>1. Toe Deformity (Word Coinage in Interlanguage Strategies) 2. Strange Toe Shape (Word Coinage in Interlanguage Strategies)</p>

<p>Hematoma (Haemato- ma) (Latin: hemato- and -oma)</p>	<p>血腫</p>	<p>Xiě Zhǒng</p>	<p>A localized swelling filled with blood (Componential Paraphrasing in Interlanguage Strategies)</p>
---	-----------	------------------	--

<p>Hemodialy- sis (Haemodialy sis) (Ancient Greek: αἱμο- haimo-) (Greek: dialysis)</p>	<p>洗腎</p>	<p>Xǐ Shèn</p>	<p>Clean your blood by facilities instead of your organ (Restructuring in Interlanguage Strategies)</p>
--	-----------	-------------------------	--

Hydro- cephalus (Greek: hydrokephal os)	水腦	Shuǐ Nǎo	Water Brain (Word Coinage in Interlanguage Strategies)
Hypotension (Ancient Greek: ὑπο- / hypo-) (Middle French tension)	低血壓	Dī Xiě Yā	Low Blood Pressure (Generalization in Interlanguage Strategies)
Immune Dysfunction (Latin: immūnis) (Greek: δυσ- / dys-)	免疫 系統	Miǎn Yì Xì Tǒng	Immune System Virus Fighting System (Word Coinage in Interlanguage Strategies)

<p>Insulin (Latin: insula)</p>	<p>胰島素 Yí Dǎo Sù</p>	<p>1. It is usually used for treating diabetes. (Restructuring in Interlanguage Strategies) 2. For treating diabetes substance (Meaning Replacement)</p>
<p>Labor Pains (Ancient Greek: ποινή, poiné)</p>	<p>陣痛 Zhèn Tòng</p>	<p>A regularly recurrent spasm of pain, is one of the characteristics of childbirth (Restructuring in Interlanguage Strategies)</p>

Pitocin;	催產素	Cuī	Breast Lactate Stimulant
Oxytocin		Chǎn	(Meaning Replacement by
(Ancient		Sù	Maintaining the Concept
Greek: ὄξυς /			and Topic)
oxus, swift +			
τόκος /			
tokos,			
childbirth)			

Polyostotic	纖維	Xiān Wéi Fā	Tissue Defect
Fibrous	發育	Yù Bù Liáng	(Generalization and use
Dysplasia	不良		subordinate words in
(Albright's			Interlanguage Strategies)
Disease)			
(Ancient			
Greek:			
δυσ- dys- +			
πλάσις			
plasis)			

Post-traumatic Stress Disorder (PTSD) (Greek: traumatikos)	創傷後 心理壓 力 綜合症	Chuāng Shāng Hòu Xīn Lǐ Yā Lì Zòng Hé Zhèng	A severe anxiety disorder, can develop after exposure to any event results in psychological trauma. (Restructuring in Interlanguage Strategies)
Premature Complexes (Latin: praematurus) (Latin: complexus)	心室性 早搏	Xīn Shì Xìng Zǎo Bó	Early Heart Beating (Meaning Replacement by Maintaining the Concept in Topic)
Psoriasis (Greek: psoriasis)	牛皮癬	Niú Pí Xiǎn	Red Skin and Irritation (Activity and Componential Analyses in Interlanguage Strategies)

Scoliosis (Greek: skoliosis)	脊椎 側彎	Jǐ Zhuī Cè Wān	Bended Spine (Word Coinage in Interlanguage Strategies)
Sengstaken Blakemore	腸胃 鏡	Cháng Wèi Jìng	Stomach Video (Word Coinage in Interlanguage Strategies)
Sternum (Ancient Greek: στέρνον)	中央 胸骨	Zhōng Yāng Xiōng Gǔ	Chest Bone (Word Coinage in Interlanguage Strategies)
Toxic Shock Syndrome (Latin: toxicus) (Middle French: choquer)	中毒性 休克 症候群	Zhōng Dú Xìng Xiū Kè Zhèng Hòu Qún	A potentially fatal illness caused by a bacterial toxin (Restructuring in Interlanguage Strategies)

Transpo- sition of the Grant Vessels (Latin: transpositus) (Latin: vascellum)	大血管 轉位	Dà Xiě Guǎn Zhuǎn Wèi	The big vein moves to strange position. (Activity and Componential Paraphrase in Interlanguage Strategies)
Neurotomy (Ancient Greek: τόμος)	神經 切斷術	Shén Jīng Qiē Duàn Shù	Cutting Nerve Skill (Word Coinage in Interlanguage Strategies)

Hydro therapy	水療	Shuǐ Liáo	Water cure therapy (Word Coinage)
Aquatic therapy (Italiano: Idroterapia)			Jacuzzi (Interlanguage Strategies)

2 Dental Jargon

Standard Terms	Jargon	Hanyu Pinyin	Strategic Examples
Abscess (Latin: abscessus)	膿腫	Nóng Zhǒng	An infection of a tooth, soft tissue, or bone (Restructuring in Interlanguage Strategies)

<p>Alveolar Bone (Latin: alveolus) (Middle English: bon Old English: bān)</p>	<p>牙槽骨 Yá Cáo Gǔ</p>	<p>The bone surrounding the root of the tooth, anchoring it in place; loss of this bone is typically associated with severe periodontal (gum) disease (Place and Componential Paraphrase in Interlanguage Strategies)</p>
---	----------------------	---

<p>Biopsy (French: biopsie)</p>	<p>活檢 Huó Jiǎn</p>	<p>Subtraction of a trivial piece of tissue for diagnostic examination (Componential Restructuring in Interlanguage Strategies)</p>
---	--------------------	---

Coronary	動脈	Dòng Mài	Blood Vessel Examining
Angiography	血管	Xiě Guǎn	Technique
(Latin: coronarius)	攝影	Shè Yǐng	(Word Coinage in Interlanguage Strategies)
(Greek angeion			
Latin - graphia,			
from Ancient Greek:			
verb γράφω)			

<p>Leukoplakia (New Latin: leuko-, white plural + Greek plax, plak-, flat area)</p>	<p>白斑 Bái Bān</p>	<p>A white or gray patch develops on the tongue or the inside of the cheek, which is the mouth's reaction to chronic irritation of the mucous membranes of the mouth. (Restructuring in Interlanguage Strategies)</p>
<p>Local Anesthesia (Greek: anaisthēsiā); Topical Anesthetic (anaisthētos)</p>	<p>局部 Jú Bù 麻醉劑 Má Zuì Jì</p>	<p>Ointment that produces mild anesthesia when applied to a soft tissue surface (Functional and Componential Paraphrase) (Restructuring in Interlanguage Strategies)</p>

Mouth	牙膠	Yá	A soft-fitted device that is inserted into the mouth and worn over the teeth to protect them against impact or injury
Guard		Jiāo	
(Middle			(Substance and Componential Paraphrase in Interlanguage Strategies)
French:			
garde			
guardian)			

<p>Oral Pathologist (Ancient Greek: πάθος, pathos)</p>	<p>口腔 病理 學家</p>	<p>Kǒu Qiāng Bìng Lǐ Xué Jiā</p>	<p>The oral health care provider who studies the causes of diseases that alter or affect the oral structures (teeth, lips, cheeks, jaws) as well as parts of the face and neck (Functional and Componential Paraphrase in Interlanguage Strategies)</p>
<p>Retainer (Latin: ambactus)</p>	<p>保持器</p>	<p>Bǎo Chí Qì</p>	<p>A removable appliance used to maintain teeth in a given position and usually worn at night. (Functional Paraphrase in Interlanguage Strategies)</p>

3 Chinese Medicine Jargon (From Chinese medical majors)

Standard Terms	Jargon	Hanyu Pinyin	Strategic Examples
Hyper-spasms	痙攣 抽搐	Jìng Lüán Chōu Xù	1. Our nerve becomes unhealthy due to twitching (Activity Paraphrase and Componential Analysis, in Interlanguage Strategies) 2. Spastic Twitch (Word Coinage, Make up a new Word in Interlanguage Strategies)
Meditation	打坐	Dǎ	1. Sit and keep the mind in

(Latin:
meditatio)

Zuò

a state of contemplation,
musing and sitting.

(Activity Paraphrase in
Interlanguage Strategies)

2. It is an art of China; you
should sit with your legs
bent, modestly.

(Activity and Place
Paraphrase in
Interlanguage Strategies)

Regimen

養生

Yǎng

1. Live in a healthy way,

(Latin: regimen sanitatis)	之道	Shēng Zhī Dào	for examples, keep doing exercise and eat enough vegetables and fruits every day (Activity Exemplification in Paraphrase, Interlanguage Strategies) 2. The way to preserve one's health (Restructuring in Interlanguage Strategies)
----------------------------------	----	---------------------	--

Sun's	陽氣	Yáng	1. Positive energy in one's
-------	----	------	-----------------------------

<p>Atmosphere (Ancient Greek: σύν ἀτμός and σφαῖρα)</p>	Cì	body	<p>(Componential Paraphrase in Interlanguage) 2. With “Good Breath” to our body (Restructuring in Interlanguage Strategies)</p>
<p>Burning Prickle Treatment (Latin: acus punctura)</p>	針灸	Zhēn Jiǔ	<p>1. Inserting needles into the body (Restructuring in Interlanguage Strategies) 2. Pseudoscience of Chinese medicine (Replacement Strategies)</p>

Pulling Cups	拔罐	Bá Guàn	<ol style="list-style-type: none"> 1. Fire cupping therapy (Word Coinage) 2. Cup therapy by hand or electrical pumps (Restructuring in Interlanguage Strategies)
<hr/>			
Gua sha	刮痧	Guā Shā	<ol style="list-style-type: none"> 1. Scraping sha-bruises upon skin for bloody flowing (Paraphrase) 2. Scrape wind away, causing cold (Paraphrase) 3. Skin scraped to produce light bruising

The discourses by the medical majors from diverse departments are fluent and smooth. Numerous ideas and lexis could be developed from the students' mother tongues. For instance, a Heart-Mind-Closed person (Word Coinage for Autism) is created from Mandarin's "self-close" 自閉 (Zì Bì). The simplified speech productions can establish an equivalent human right environment in the health centers, shortening the distances among the professionals, patients and patients' relatives.

It is suggested the therapeutic professors also should apply the simplified interpretations to clarify and illustrate the theories and logics in Physiology for interns. The examples from the Taiwanese/Mandarin aspects elicited further research, which is exploring the same issue from diverse nations' perspectives. For instance, to what level can students from other nations understand the Taiwanese examples? Moreover, based on multinational treatment concepts, what other localized examples can be interpreted?

Discussion and Conclusion

All in all, the students can apply the strategic plans capably, in their first year of medical study. In this study, sufficient medical graphs associated with Physique had submitted to students for linguistics research. In class, the students also brought the other teachers' notes and graphs for finding a terminology to interpret in their final assignments. After discussing with their peers by terminology demonstrations to peers in groups, the students double checked their comprehension in medical knowledge as well as in communication strategies.

The participants including the 144 medical major freshmen had successfully learnt how to apply simplified language to handle urgent situations. The medical freshmen had regarded strategic communication to be accommodating in their hospital language plans, especially the Interlanguage Strategies. Since this strategy plan can interpret foreign language in an easy way by directly translating the meanings into words, they are very much used by

students, especially the participants in Chinese medication majors. Some treatment names of ancient Chinese were directly interpreted by the strategy plans, such as word coinage and paraphrase. This strategic plan can clearly introduce cultures and encourage students to be professional while taking care of their foreign patients.

The replacement strategies were also broadly applied by students. Since the strategic plan does not request serious grammatical accuracy, the participants felt more free and confident to express their terminologies. The interpreted terms actually still sounds very professional, because some simpler terms students can remember were included. For example, the “Arthrography” was explained by “Articulation Video”. That is while the freshmen have not ready to apply the prefix and suffix of the medical terms, the roots of the term can still be generally applied.

In this study, the students also expressed that the medical majors need to have a sense of confidence and higher motivation in their hospital performance. They can apply the language planning to gain more opportunity to communicate whenever their articulation

encounters any limitations. Even their medical partners' language acquisitions might not be in an advanced level they still can communicate well by meaning comprehensions.

During taking class, the students' interactions sounds flowing and skilled, when they exchanged their ideas of the medical issues. The participants can save their face, while encounter terms they had never learnt or they had forgotten.

Therefore, this study recommended the learners have to discern if the communication strategy make them survive or make their English to be Non-native like. Also, they should consider which skills in the communication strategies they are more competent to use and are more willing to use, so they can skillfully and relaxingly use those strategies to resolve their communication problem.

Summing up, teachers in medical school should provide strategies for tasks the students are going to do (Cook, 2016), and this study implies, in emergency situations, the strategic applications tend to be necessary and significant. This study has proved medical majors' interpretations frequently are based on Interlanguage Strategies

(see appendix) and Communication Strategies (Cohn, 2014, p. 13). For therapeutic purposes, they can assist the students and interns to attain their Interlanguage communicative goals by resorting to generalization, paraphrasing, word coinages and restructuring.

References

- Blum-Kulka, S., & Edward. A. L. (1983). Universals of lexical simplification. In C. Faerch & G. Kasper (Ed.), *Interlanguage communication Strategies* (pp. 119-139). New York: Longman.
- Cohn, A. D. (2014) *Strategies in learning and using a second language*. New York: Routledge.
- Cook, V. (2016). *Second language learning and language teaching*. New York: Routledge.
- Cordell, J. (2019). Multi-channel cross-modality system for providing language interpretation/translation services.
Retrieved from
<https://patents.google.com/patent/US10303776B2/en>
- Dornyei, Z. (1995). On the teachability of communication strategies. *TESOL Quarterly*, 29, 55-84.
- Faerch, C., & Gabriele, K. (1983). *Strategies in interlanguage communication*. New York: Longman.
- Kaivanpanah, S., Yamouty, P., & Karami, H. (2012). Examining the effects of proficiency, gender, and task type on the use of

communication strategies. *Porta Linguarum* 17, 79-93.

Kellerman, E., Bongaerts, T., & Poulisse, N. (1987). Strategy and system in L2 referential communication. In N. R. Ellis (Ed.), *The social context of second language acquisition* (pp. 100-112). Englewood Cliffs, New Jersey: Prentice-Hall International.

Lam, W. K. Y. (2006). Gauging the effects of ESL oral communication strategy teaching: A multi-method approach. *Electronic Journal of Foreign Language Teaching* 3 (2), 142-157.

Littlemore, J. (2003). The communicative effectiveness of different types of communication strategy. *System* 31 (3), 331-347.

Mai, S. (2019). Your Communication Plan for 2019. Retrieved from <https://www.meltwater.com/uk/blog/communication-plan/>

Mazur, D. (2017). *Contemporary medical terminology 2017: Root words, prefixes, suffixes, and mechanisms of action*. Kindle Edition. Retrieved from: <https://www.amazon.com/Contemporary-Medical->

Terminology-2017-mechanisms-ebook/dp/B01KZ3E836

- Nakatani, Y. (2005). The effects of awareness-raising training on oral communication strategy use. *The Modern Language Journal* 89 (1), 76-91.
- Paribakht, T. (1985). Strategic competence and language proficiency. *Applied Linguistics* 6 (2), 132-146.
- Poullisse, N. (1993). A theoretical account of lexical communication strategies. *Studies in Bilingualism* 6, 157-198.
- Tarone, E. (1977). Conscious communication strategies in interlanguage: A progress report. *TESOL* 77, 194-203.
- Tarone, E. (1980). Communication strategies, foreigner talk, and repair in interlanguage. *Language Learning* 30 (2), 417-431.
- Tarone, E. (1983). Some thoughts on the notion of 'communication strategy'. In C. Faerch & G. Kasper (Eds.), *Strategies in interlanguage communication* (pp. 61-74). New York: Longman.