

IMPLEMENTATION OF THE INTEGRATIVE APPROACH TO TEACHING MEDICAL ENGLISH FOR ACADEMIC PURPOSES

У статті представлено досвід упровадження інтегративного підходу в процесі викладання курсу фахової англійської мови для науково-педагогічних працівників та здобувачів ступеня доктора філософії у закладах вищої освіти, які здійснюють підготовку фахівців галузі знань 22 «Охорона здоров'я». Авторами вироблена власна концепція викладу навчального матеріалу. Пропонований підхід апробовано при розробці підручника "Medical English for Academic Purposes" (2018), який укладено з урахуванням сучасних тенденцій інтернаціоналізації вищої школи, що передбачає підготовку фахівців, які працюватимуть у англомовному просторі сучасної науки і освіти.

Ключові слова: інтегративний підхід, галузь знань 22 «Охорона здоров'я», фахова англійська мова, науково-педагогічні працівники, здобувачі ступеня доктора філософії.

The article presents the experience of implementing the integrative approach in teaching the course in professional English for PhD students and academic staff at higher medical educational institutions that train specialists in the branch of expertise 22 "Healthcare". The authors developed their own concept of presenting the training material. The proposed approach has been tested in the development of the textbook "Medical English for Academic Purposes" (2018), which was written in the context of current trends in internationalised higher education, involving the training of specialists who will work in the modern English language educational and scientific environment.

Key words: integrative approach, branch of expertise 22 "Healthcare", English for Professional Purposes, academic staff, PhD students.

В статье представлен опыт внедрения интегративного подхода в процессе преподавания курса английского языка для научно-педагогических сотрудников и соискателей степени доктора философии в учреждениях высшего образования, осуществляющих подготовку специалистов отрасли знаний 22 «Здравоохранение». Авторами выработана собственная концепция изложения учебного материала. Предлагаемый подход апробирован при разработке учебника "Medical English for Academic Purposes" (2018), составленного с учетом современных тенденций интернационализации высшей школы, предусматривающих подготовку специалистов, которые будут работать в англоязычном пространстве современной науки и образования.

Ключевые слова: интегративный подход, отрасль знаний 22 «Здравоохранение», английский язык для профессиональных целей, научно-педагогические сотрудники, соискатели степени доктора философии.

Due to the rapidly expanding use of English not only as a *lingua franca* but also as an essential communication tool in the global integration of scientific knowledge, the English language training of researchers and teaching staff in medical universities has become a

priority task in higher medical education [1]. In this context, there is an urgent need for developing modern teaching materials in compliance with current trends in internationalised higher education. The aim of this paper is to present the experience of implementing a comprehensive approach in teaching the course in professional English for PhD students and academic staff at higher medical educational institutions.

The suggested approach has been tested in the development of textbook “Medical English for Academic Purposes” (authors: Yuliia Lysanets, Olena Bieliaieva, Maryna Melaschenko; editor and consultant: Anthony Robinson) [2]. The book was written in the context of current trends in internationalised higher education and the training of specialists working in the modern English language educational and scientific environment. The authors created their own concept for the material which is presented in British English with appropriate explanations of US and globalised usage. Sample exercise is presented in Table 1.

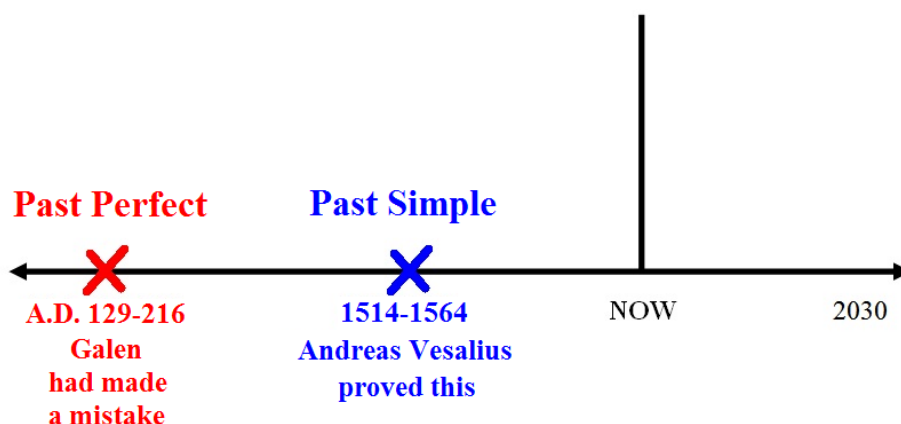
Table 1

Language fact: British and US English

- British spelling retains the “ae” combination
- US spelling uses just the letter “e”
- The pronunciation is the same

<u>Br</u>	<u>US</u>	<u>Br</u>	<u>US</u>
aetiology	etiology	gynaecology	gynecology
anaemia	anemia	haemoglobin	hemoglobin
anaesthetic	anesthetic	haemorrhage	hemorrhage
caesarean	cesarean	ischaemic	ischemic
defaecation	defecation	leukaemia	leukemia
dyslipidaemia	dyslipidemia	orthopaedic	orthopedic
glycaemic	glycemic	paediatric	pediatric

Each unit presents grammar and uses exercises to consolidate and activate the professional oral and written use of vocabulary and specialised terminology. Extracts from original professional literature demonstrate the use of medical terminology. The “Grammar Revision” section is supplemented with illustrative material to facilitate understanding and memorizing. The diagram on Past Perfect is given below:



Explanation: The **Past Perfect** describes a completed action further back in the past.

E.g.: In 1543, Andreas Vesalius proved that Galen **had made** a mistake in describing human anatomy.

Theoretical aspects are introduced within the most common syntactic constructions in modern spoken and written scientific discourse. Particular attention is paid to the essential professional vocabulary required for research and teaching practice. The sample of the “Vocabulary Focus” section is presented in Table 2.

Table 2

Verbs and Prepositions		
Verb	Preposition	Translation
1) insist	on	
2) interfere	with / in	
3) mistake	for	
4) object	to	
5) prevent	from	
6) recover	from	
7) respond	to	
8) result	in	
9) search	for	
10) stand	for	
11) suffer	from	
12) wait	for	
13) warn	about/against	

Sample exercise: Complete the sentences using these verb + preposition combinations from the table given above. Use the tense shown in brackets at the end of each sentence:

1. Removing the patient’s impacted wisdom teeth _____ the infection _____ happening again. (*Present Perfect*)
2. COPD (chronic obstructive pulmonary disease) patients _____ frequent exacerbations, often showing a typical seasonal pattern. (*Past Simple*)
3. Most patients _____ pneumonia and eventually have completely normal lungs. (*Present Perfect*)
4. Symptoms of an underactive thyroid include feeling cold, inability to concentrate, being overweight, having a slow pulse, and several other symptoms which are easy _____ the symptoms of flu; as a result many people do not recognise that they have an underactive thyroid gland for a long time. (*Infinitive*)
5. Patients were dissatisfied with information on how long the medicine would take to act, whether the medicine had any side effects, whether the medicine _____ other medicines and what you should do if you forgot to take a dose. (*Past Simple*)

In each unit, the “Communication Skills” section provides opportunity to describe a specific clinical situation.

Sample exercise 1: The images below show how two parents can pass the faulty CFTR gene to their children. What is the prognosis for both cases? What are the risks of inheriting CF in percentage terms?

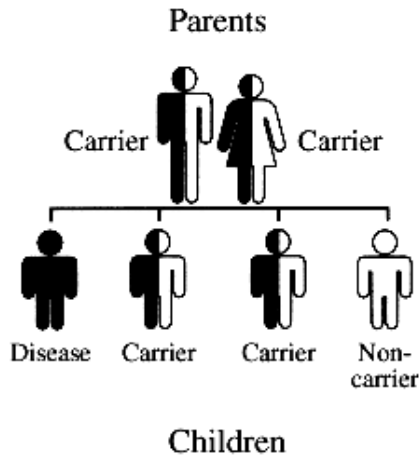


Fig. 1

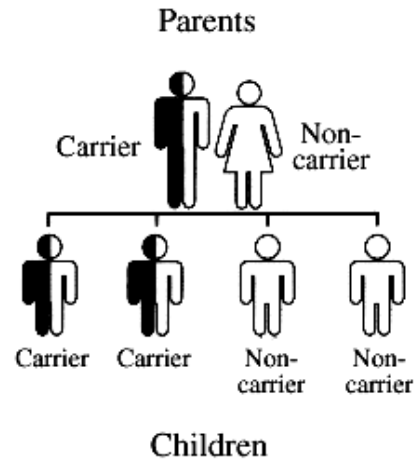


Fig. 2

Source: <http://www.webmd.com/baby/carrier-test-for-autosomal-recessive-disease>

Sample exercise 2: Describe the activities in the pictures given below using Present Continuous tense. What are these people doing?

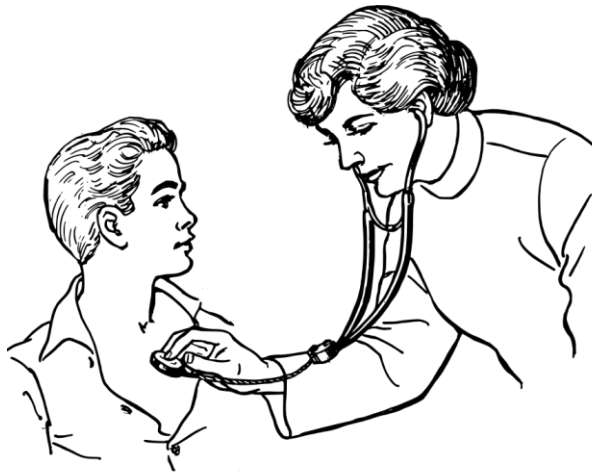


Fig. 1



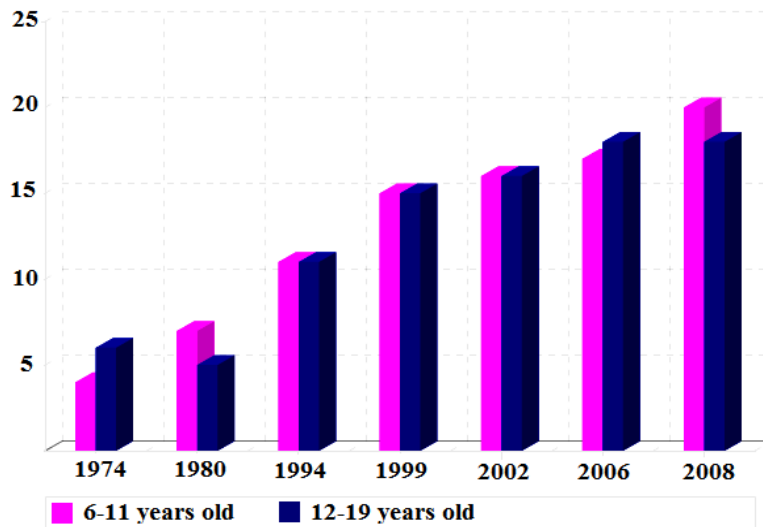
Fig. 2

(Source: <http://www.okclipart.com/Medical-Check-Up-Clip-Art>)

The exercises approximate to tasks used in Cambridge English and IELTS International examinations (Writing and Speaking Modules).

Sample exercise 1: Describe the bar chart given below: summarise the information by selecting and reporting the main features, and make comparisons where relevant. Write at least 150 words.

Percentage of U.S. children who are obese



(Source: <https://www.emaze.com/>)

Sample exercise 2: Write an article of 100 words suitable for a website about: “The most useful thing I have learned in medicine or science.”

Include in your article the answers to these questions:

1. What is the most useful thing you have learned?
2. Who / where did you learn it from?
3. Why is it useful?

Sample exercise 3: Describe in 100 words someone (living or in history) who has had an important influence in your life and why.

Considerable attention has been paid to the mechanisms of terminology. In each unit, the “Medical Terms Formation” section is based on the Latin and Greek word elements on which the English medical terminology strongly relies.

Sample exercise 1: Fill in the table with anatomical and clinical terminology: match the Greek and Latin terms and translate them into English.

Greek: a) cardi-; b) angi-; c) phleb-; d) pneum(on-); e) haem-, haemat-

Latin	Greek	English
1) vas		
2) sanguis		
3) cor		
4) vena		
5) pulmo		

Sample exercise 2: Use these medical terms for the definitions in the sentences. Use two or three words from the box for each answer.

a) angi-; b) phleb-; c) -itis; d) haemat-; e) -algia; f) myo-; g) -ectasia; h) -graphy; i) -oma; k) cardi-; l) -cele; m) -logy

1. The inflammation of the heart muscle – _____
2. Abnormal dilation of the veins – _____
3. The branch of medicine concerned with the study, diagnosis, treatment, and prevention of diseases related to blood – _____
4. A benign vascular tumour – _____
5. Pain attributed to vascular pathology; “vascular pain” – _____
6. Medical imaging of the heart action – _____
7. Protrusion of the heart through an opening in the diaphragm – _____
8. The inflammation of a vein – _____

Sample exercise 3: Revise the Greek and Latin term elements: translate them into English (fill in the “meaning column”) and provide 2-3 examples for each case. The first line has been filled in for you as an example:

No.	Latin root	Greek root	Meaning	Examples
1.	uter-	hyster(o)-; metr(o)-	<i>uterus</i>	<i>Endometrium, hysterectomy, metrorrhexis</i>
2.	vagin-	colp-		
3.	corpor-	somat-, som-		
4.	oss-	oste-		
5.	mamm-	mast-		
6.	aur(i)-	ot(o)-		
7.	ocul-	ophthalm(o)-		
8.	palpebr-	blephar(o)-		
9.	digit-	dactyl(o)-		
10.	ren-	nephr(o)-		
11.	labi-	cheil(o)-		
12.	lingu-	gloss-		
13.	or-	stomat(o)-		
14.	nas-	rhin(o)-		
15.	cut-	dermat(o)-, (derm)-		
16.	ventr-	gastr(o)-		

The abbreviations prevalent in medical English are explained as the challenges in using a foreign language professionally (Table 3).

Table 3

Latin used in Prescription Writing: Reading Abbreviations

Abbreviation	Latin	Meaning
b.i.d.	Bis in die	Twice daily
t.i.d.	Ter in die	Three times daily
QID / q.i.d.	Quarter in die	Four times daily
hs (or qhs)	(Quaque) hora somni	At bedtime (each night)
p.c.	Post cibum	After meals
prn.	Pro re nata	As circumstances may require, as needed
ad. lib.	Ad libitum	As you desire or need
p.o.	Per os	By mouth (orally)
p.r.	Per rectum	Rectally (suppository)
a.c.	Ante cibum	Before meals
OD OS OU	Oculus dexter Oculus sinister Oculus uterque	Right eye Left eye Both eyes
q.d.	Quaque die	Daily
i.v.	Intra venam (intravenosus, a, um → injectio intravenosa)	Into the vein
s.q.	Sub cutem (subcutaneous, a, um → injectio subcutanea)	Beneath the layers of the skin
q.h.	Quaque hora	Hourly
c.c.	Cum cibos	With food
gtt. (gtts.)	Gutta (guttae)	Drop(s)
stat.	Statim!	Immediately
dieb. alt.	Diebus alternis	Every other day
ung.	Unguentum	Ointment
nebul	Nebula	Spray

Particular attention is paid to translator’s “false friends” [3], as well as the associated paronymic (Tables 4, 5) and polysemic (Tables 6, 7) phenomena.

Table 4

Paronyms with Eponymic Component


	➤	Meigs’ syndrome (ovarian fibroma with ascites and pleural effusion)
	➤	Meige’s syndrome (blepharospasm with oromandibular dystonia)
	➤	Meige’s disease (lymphoedema praecox)
	➤	Meniere’s disease (cochlear hydrops)
	➤	Menetrier’s disease (hyperplastic hypersecretory gastrophy)
	➤	Wermer’s syndrome (multiple endocrine neoplasms, type 1)
	➤	Werner’s syndrome (hereditary premature aging)

Table 5

Commonly Misspelled Words in Medicine


	➤	enuresis (inability to control urination) and anuresis (retention of urine in the urinary bladder)
	➤	elicit (to get (a response, information, etc.) from someone) and illicit (not legally permitted or authorised; unlicensed; unlawful)
	➤	exacerbate (to increase the severity, bitterness, or violence of (disease, ill feeling, etc.)) and exasperate (to irritate; to annoy greatly)
	➤	occur – occurring – occurrence
	➤	perineal (pertaining to groin) and peroneal (pertaining to fibula)
	➤	persistent (NOT <i>persistant</i>)
	➤	indispensable (NOT <i>indispensible</i>)
	➤	regime (a form of government) and regimen (a systematic approach to diet, medicine, or exercise)
	➤	sagittal (NOT <i>saggital</i>)
	➤	tonsil (NOT <i>tonsil</i>), but tonsillectomy (NOT <i>tonsilectomy</i>)
	➤	vesicle (noun) and vesical (adjective)

Table 6

Words with Opposite Meanings: the verb “to skin”


	<u>To skin</u>	
	<i>may have opposite meanings depending on the context</i>	
	➤	“to scrape, to rub off, to damage the surface of” (e.g., “I fell and skinned my knee”) AND “to heal by scar formation” (e.g., “The wound was skinning over”)

Table 7

Words with Opposite Meanings: “Oversight” and “Oversee”



Oversight

Depending on the context, the noun “**oversight**” means:

a. *supervision* (e.g. looking after someone, monitoring)

b. an *inadvertent omission*. (e.g. it was an oversight on his part that the patient was misdiagnosed.)

However:

The verb “**to oversee**” means *to supervise, control*. Note it does not have the second meaning of the noun.

Taking into account that the ability to use an academic and professional level of English is now a strategic prerequisite for the further advancement of higher medical education in Ukraine [1], special attention has been paid to developing the academic and scientific language skills for writing abstracts and summaries which are accessible to a modern international readership.

Thus, the textbook “Medical English for Academic Purposes” (2018) is intended to support courses in professional English for PhD students and academic staff at higher medical educational institutions, to reinforce the English grammar usage, to improve academic writing and to develop the communication skills of postgraduate students and teaching staff. The authors believe that the professional development of PhD students and academic and clinical teachers of English-speaking medical students will promote academic mobility, scientific cooperation and the training of foreign students to international standards, and thus contribute to the development of higher medical education in Ukraine.

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