



كلية الطب
والصيدلة - مراكش
FACULTÉ DE MÉDECINE
ET DE PHARMACIE - MARRAKECH

Year 2020

Thesis N° 194

**Medical English in Obstetrics and Gynecology:
An interactive learning material for medical students,
designed in the Medical School of Marrakesh,
Cadi Ayyad University.**

THESIS

PRESENTED AND PUBLICLY DEFENDED ON OCTOBER 15, 2020.

By

Ms. ZAYNAB ZBIRI

Born on May 14, 1994 in Marrakech

TO OBTAIN THE DEGREE OF DOCTOR OF MEDICINE

KEYWORDS

Gynecology and Obstetrics–Medical English–E–learning
Website–Mobile application

JURY

Mr. M. BOUSKRAOUI

Professor of Pediatrics

PRESIDENT

Mr. K. HAROU

Professor of Obstetrics and Gynecology

SUPERVISOR

Ms. N. IDRISSE SLITINE

Professor of Pediatrics

Mr. M.D. EL AMRANI

Professor of Plastic and Reconstructive Surgery

Mr. A.R. EL ADIB

Professor of Anesthesiology and Resuscitation

JUDGES

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

لَا إِلَهَ إِلَّا اللَّهُ مُحَمَّدٌ عَبْدُهُ وَرَسُولُهُ
وَأَشْهَدُ أَنَّ مُحَمَّدًا عَبْدُهُ وَرَسُولُهُ
وَأَشْهَدُ أَنَّ مُحَمَّدًا عَبْدُهُ وَرَسُولُهُ



LIST OF PROFESSORS



UNIVERSITE CADI AYYAD
FACULTE DE MEDECINE ET DE PHARMACIE
MARRAKECH

Doyens Honoraires

: Pr. BadieAzzaman MEHADJI
: Pr. Abdelhaq ALAOUI YAZIDI

ADMINISTRATION

Doyen

: Pr. Mohammed BOUSKRAOUI

Vice doyen à la Recherche et la Coopération

: Pr. Mohamed AMINE

Vice doyen aux Affaires Pédagogiques

: Pr. Redouane EL FEZZAZI

Secrétaire Générale

: Mr. Azzeddine EL HOUDAIGUI

Professeurs de l'enseignement supérieur

Nom et Prénom	Spécialité	Nom et Prénom	Spécialité
ABKARI Imad	Traumato- orthopédie	FAKHIR Bouchra	Gynécologie- obstétrique
ABOU EL HASSAN Taoufik	Anesthésie- réanimation	FINECH Benasser	Chirurgie - générale
ABOUCHADI Abdeljalil	Stomatologie et chirmaxillo faciale	FOURAJI Karima	Chirurgie pédiatrique
ABOULFALAH Abderrahim	Gynécologie- obstétrique	GHANNANE Houssine	Neurochirurgie
ABOUSSAIR Nisrine	Génétique	GHOUNDALE Omar	Urologie
ADALI Imane	Psychiatrie	HACHIMI Abdelhamid	Réanimation médicale
ADERDOUR Lahcen	Oto- rhino- laryngologie	HAJJI Ibtissam	Ophtalmologie
ADMOU Brahim	Immunologie	HAROU Karam	Gynécologie- obstétrique
AGHOUTANE EI Mouhtadi	Chirurgie pédiatrique	HOCAR Ouafa	Dermatologie
AIT AMEUR Mustapha	Hématologie Biologique	JALAL Hicham	Radiologie
AIT BENALI Said	Neurochirurgie	KAMILI EI Ouafi EI Aouni	Chirurgie pédiatrique
AIT BENKADDOUR Yassir	Gynécologie- obstétrique	KHALLOUKI Mohammed	Anesthésie- réanimation
AIT-SAB Imane	Pédiatrie	KHATOURI Ali	Cardiologie
AKHDARI Nadia	Dermatologie	KHOUCHANI Mouna	Radiothérapie
ALAOUI Mustapha	Chirurgie- vasculaire péripherique	KISSANI Najib	Neurologie
AMAL Said	Dermatologie	KOULALI IDRISSE Khalid	Traumato- orthopédie
AMINE Mohamed	Epidémiologie- clinique	KRATI Khadija	Gastro- entérologie
AMMAR Haddou	Oto-rhino-laryngologie	KRIET Mohamed	Ophtalmologie
AMRO Lamyae	Pneumo- phtisiologie	LAGHMARI Mehdi	Neurochirurgie
ANIBA Khalid	Neurochirurgie	LAKMICH I Mohamed Amine	Urologie
ARSALANE Lamiae	Microbiologie -Virologie	LAOUAD Inass	Néphrologie

ASMOUKI Hamid	Gynécologie- obstétrique	LOUHAB Nistrine	Neurologie
ASRI Fatima	Psychiatrie	LOUZI Abdelouahed	Chirurgie - générale
BASRAOUI Dounia	Radiologie	MADHAR Si Mohamed	Traumato- orthopédie
BASSIR Ahlam	Gynécologie- obstétrique	MANOUDI Fatiha	Psychiatrie
BELKHOU Ahlam	Rhumatologie	MANSOURI Nadia	Stomatologie et chirumaxillo faciale
BEN DRISS Laila	Cardiologie	MAOULAININE Fadl mrabihrabou	Pédiatrie (Neonatalogie)
BENCHAMKHA Yassine	Chirurgie réparatrice et Plastique	MATRANE Aboubakr	Médecine nucléaire
BENELKHAJAT BENOMAR Ridouan	Chirurgie - générale	MOUAFFAK Youssef	Anesthésie - réanimation
BENHIMA Mohamed Amine	Traumatologie - orthopédie	MOUDOUNI Said Mohammed	Urologie
BENJILALI Laila	Médecine interne	MOUFID Kamal	Urologie
BENZAROUEL Dounia	Cardiologie	MOUTAJ Redouane	Parasitologie
BOUAITY Brahim	Oto-rhino- laryngologie	MOUTAOUAKIL Abdeljalil	Ophtalmologie
BOUCHENTOUF Rachid	Pneumo- phtisiologie	MSOUGGAR Yassine	Chirurgie thoracique
BOUGHALEM Mohamed	Anesthésie - réanimation	NAJEB Youssef	Traumato- orthopédie
BOUKHANNI Lahcen	Gynécologie- obstétrique	NARJISS Youssef	Chirurgie générale
BOUKHIRA Abderrahman	Biochimie - chimie	NEJMI Hicham	Anesthésie- réanimation
BOUMZEBRA Drissi	Chirurgie Cardio- Vasculaire	NIAMANE Radouane	Rhumatologie
BOURRAHOUE Aicha	Pédiatrie	NOURI Hassan	Oto rhino laryngologie
BOURROUS Monir	Pédiatrie	OUALI IDRISSE Mariem	Radiologie
BOUSKRAOUI Mohammed	Pédiatrie	OULAD SAIAD Mohamed	Chirurgie pédiatrique
CHAFIK Rachid	Traumato- orthopédie	QACIF Hassan	Médecine interne
CHAKOUR Mohamed	Hématologie Biologique	QAMOUSS Youssef	Anesthésie- réanimation
CHELLAK Saliha	Biochimie- chimie	RABBANI Khalid	Chirurgie générale
CHERIF IDRISSE EL GANOUNI Najat	Radiologie	RADA Nouredine	Pédiatrie
CHOULLI Mohamed Khaled	Neuro pharmacologie	RAIS Hanane	Anatomie pathologique
DAHAMI Zakaria	Urologie	RAJI Abdelaziz	Oto-rhino-laryngologie

DRAISS Ghizlane	Pédiatrie	ROCHDI Youssef	Oto-rhino- laryngologie
EL ADIB Ahmed Rhassane	Anesthésie- réanimation	SAIDI Halim	Traumato- orthopédie
EL ANSARI Nawal	Endocrinologie et maladies métaboliques	SAMKAOUI Mohamed Abdenasser	Anesthésie- réanimation
EL BARNI Rachid	Chirurgie- générale	SAMLANI Zouhour	Gastro- entérologie
EL BOUCHTI Imane	Rhumatologie	SARF Ismail	Urologie
EL BOUIHI Mohamed	Stomatologie et chirurgie maxillo faciale	SORAA Nabila	Microbiologie – Virologie
EL FEZZAZI Redouane	Chirurgie pédiatrique	SOUMMANI Abderraouf	Gynécologie- obstétrique
EL HAOURY Hanane	Traumato- orthopédie	TASSI Noura	Maladies infectieuses
EL HATTAOUI Mustapha	Cardiologie	TAZI Mohamed Illias	Hématologie- clinique
EL HOUDZI Jamila	Pédiatrie	YOUNOUS Said	Anesthésie- réanimation
EL IDRISSE SLITINE Nadia	Pédiatrie	ZAHLANE Kawtar	Microbiologie – virologie
EL KARIMI Saloua	Cardiologie	ZAHLANE Mouna	Médecine interne
EL KHAYARI Mina	Réanimation médicale	ZAOUI Sanaa	Pharmacologie
EL MGHARI TABIB Ghizlane	Endocrinologie et maladies	ZIADI Amra	Anesthésie – réanimation
ELFIKRI Abdelghani	Radiologie	ZOUHAIR Said	Microbiologie
ESSAADOUNI Lamiaa	Médecine interne	ZYANI Mohammed	Médecine interne
FADILI Wafaa	Néphrologie		

Professeurs Agrégés

Nom et Prénom	Spécialité	Nom et Prénom	Spécialité
ABIR Badreddine	Stomatologie et Chirurgie maxillo facial	HAZMIRI Fatima Ezzahra	Histologie – Embryologie -Cytogénétique
ADARMOUCH Latifa	Médecine Communautaire (médecine préventive, santé publique ethygiène)	IHBIBANE fatima	Maladies Infectieuses
AISSAOUI Younes	Anesthésie – réanimation	KADDOURI Said	Médecine interne
AIT BATAHAR Salma	Pneumo- phtisiologie	LAHKIM Mohammed	Chirurgie générale
ALJ Soumaya	Radiologie	LAKOUICHMI Mohammed	Stomatologie et Chirurgie maxillo faciale
ATMANE El Mehdi	Radiologie	MARGAD Omar	Traumatologie – orthopédie
BAIZRI Hicham	Endocrinologie et maladies métaboliques	MEJDANE Abdelhadi	Chirurgie Générale

BELBACHIR Anass	Anatomie- pathologique	MLIHA TOUATI Mohammed	Oto-Rhino - Laryngologie
BELBARAKA Rhizlane	Oncologie médicale	MOUHSINE Abdelilah	Radiologie
BENJELLOUN HARZIMI Amine	Pneumo- phtisiologie	NADER Youssef	Traumatologie - orthopédie
BENALI Abdeslam	Psychiatrie	OUBAHA Sofia	Physiologie
BSISS Mohamed Aziz	Biophysique	RBAIBI Aziz	Cardiologie
CHRAA Mohamed	Physiologie	SAJIAI Hafsa	Pneumo- phtisiologie
DAROUASSI Youssef	Oto-Rhino - Laryngologie	SALAMA Tarik	Chirurgie pédiatrique
EL AMRANI Moulay Driss	Anatomie	SEDDIKI Rachid	Anesthésie - Réanimation
EL HAOUATI Rachid	Chirurgie Cardiovasculaire	SERGHINI Issam	Anesthésie - Réanimation
EL KHADER Ahmed	Chirurgie générale	TOURABI Khalid	Chirurgie réparatrice et plastique
EL MEZOUARI EI Moustafa	Parasitologie Mycologie	ZARROUKI Youssef	Anesthésie - Réanimation
EL OMRANI Abdelhamid	Radiothérapie	ZEMRAOUI Nadir	Néphrologie
FAKHRI Anass	Histologie- embyologie cytogénétique	ZIDANE Moulay Abdelfettah	Chirurgie Thoracique
GHAZI Mirieme	Rhumatologie		

Professeurs Assistants

Nom et Prénom	Spécialité	Nom et Prénom	Spécialité
ABDELFETTAH Youness	Rééducation et Réhabilitation Fonctionnelle	ELOUARDI Youssef	Anesthésie réanimation
ABDOU Abdessamad	Chiru Cardio vasculaire	ELQATNI Mohamed	Médecine interne
AIT ERRAMI Adil	Gastro-entérologie	ESSADI Ismail	Oncologie Médicale
AKKA Rachid	Gastro - entérologie	FDIL Naima	Chimie de Coordination Bioorganique
ALAOUI Hassan	Anesthésie - Réanimation	FENNANE Hicham	Chirurgie Thoracique
AMINE Abdellah	Cardiologie	GHOZLANI Imad	Rhumatologie
ARABI Hafid	Médecine physique et réadaptation fonctionnelle	HAJJI Fouad	Urologie
ARSALANE Adil	Chirurgie Thoracique	HAMMI Salah Eddine	Médecine interne
ASSERRAJI Mohammed	Néphrologie	Hammoune Nabil	Radiologie
AZIZ Zakaria	Stomatologie et chirurgie maxillo faciale	JALLAL Hamid	Cardiologie

BAALLAL Hassan	Neurochirurgie	JANAH Hicham	Pneumo- phtisiologie
BABA Hicham	Chirurgie générale	LAFFINTI Mahmoud Amine	Psychiatrie
BELARBI Marouane	Néphrologie	LAHLIMI Fatima Ezzahra	Hématologie clinique
BELFQUIH Hatim	Neurochirurgie	LAHMINE Widad	Pédiatrie
BELGHMAIDI Sarah	OPhtalmologie	LALYA Issam	Radiothérapie
BELHADJ Ayoub	Anesthésie – Réanimation	LOQMAN Souad	Microbiologie et toxicologie environnementale
BELLASRI Salah	Radiologie	MAHFOUD Tarik	Oncologie médicale
BENANTAR Lamia	Neurochirurgie	MILOUDI Mohcine	Microbiologie – Virologie
BENNAOUI Fatiha	Pédiatrie	MOUNACH Aziza	Rhumatologie
BOUCHENTOUF Sidi Mohammed	Chirurgie générale	NAOUI Hafida	Parasitologie Mycologie
BOUKHRIS Jalal	Traumatologie – Orthopédie	NASSIH Houda	Pédiatrie
BOUTAKIOUTE Badr	Radiologie	NASSIM SABAH Taoufik	Chirurgie Réparatrice et Plastique
BOUZERDA Abdelmajid	Cardiologie	NYA Fouad	Chirurgie Cardio – Vasculaire
CHETOUI Abdelkhalek	Cardiologie	OUEIRAGLI NABIH Fadoua	Psychiatrie
CHETTATI Mariam	Néphrologie	OUMERZOUK Jawad	Neurologie
DAMI Abdallah	Médecine Légale	RAISSI Abderrahim	Hématologie clinique
DOUIREK Fouzia	Anesthésie–réanimation	REBAHI Houssam	Anesthésie – Réanimation
EL- AKHIRI Mohammed	Oto- rhino- laryngologie	RHARRASSI Isam	Anatomie–patologique
EL AMIRI My Ahmed	Chimie de Coordination bio–organnique	SAOUAB Rachida	Radiologie
EL FADLI Mohammed	Oncologie médicale	SAYAGH Sanae	Hématologie
EL FAKIRI Karima	Pédiatrie	SEBBANI Majda	Médecine Communautaire (médecine préventive, santé publique et hygiène)
EL HAKKOUNI Awatif	Parasitologie mycologie	TAMZAOURTE Mouna	Gastro – entérologie
EL HAMZAOUI Hamza	Anesthésie réanimation	WARDA Karima	Microbiologie
EL KAMOUNI Youssef	Microbiologie Virologie	ZBITOU Mohamed Anas	Cardiologie
ELBAZ Meriem	Pédiatrie	ZOUIZRA Zahira	Chirurgie Cardio-vasculaire

LISTE ARRÊTÉE LE 24/09/2019



DEDICATIONS



“I want to thank me.

I want to thank me for believing in me.

I want to thank me for doing all this hard work.

I want to thank me for having no days off.

I want to thank me for never quitting.

I want to thank me for always being a giver and trying to give more than I receive.

I want to thank me for trying to do more right than wrong.

I want to thank me for just being me at all times. »

Snoop Dogg

To God,

I will always remember those days when I prayed for all the things that I have now. I couldn't be more blessed.

الحمد لله دائما و أبدا.

To my dear parents,

Baba w'Mama, to whom I owe everything. Every-single-thing. I would've never made it this far without you. Allah ikhellikoumlia.

To my sister Mariam,

For all the laughter and all the fights. For every time you asked me to go out with you when you knew my exams were for the next day.

You are truly priceless a smiytek. ☺

To my sister Amal,

For giving me the strength I needed to go the extra mile, 8 years ago, exactly 10 days before taking the entry exam to medical school. I miss you.

To my aunt Aicha,

For being my role model in the medical profession. I look up to you, and I am thankful for all the support you've always provided me with.

To my clerkship partner,

For opening the door for me, five hours later, using a chest X-Ray image, the day I got locked in a hospital cubicle during a nightshift in NICU.

So grateful ! :)

To the best ophtalmologist in the world,

For never failing me, and for teaching me what gratitude is. Plus, I've only had a 20/20 once in the last 8 years, and that was back when you were here. I think that says barchafazet. Aychek !

To my forever President,

For showing me the way, during my very first years in medical school. I have grown so much by your side as a part of the Student Council.

Thank you.

To the GFR members I've had the chance to meet,

For the two awesome experiences, and for allowing me to discover so many amazing people. I learned so much from you, and can't wait for even more missions.

To PrM. Mouhaoui,

*For teaching me that sometimes, all I need is to step back and close my eyes,
in order to see better around me.*

To my favourite massive chocolate eater,

*For feeling like an adventure, and like home. All at once, somehow.
Ou safi :)*

To loving memory of Pr Tarik Fikry...

To loving memory of Dr Mohamed El Amine Rhazaoui...

*To every single person who has blessed me with a genuine smile, a helping
hand, a sympathetic ear, a sincere prayer ...*

To all those who inspired it, but will never read it...

I feel deeply grateful, and I dedicate this work.



ACKNOWLEDGMENTS



*To Professor Mohamed Bouskraoui
Professor of Pediatrics*

Who has granted me a great honor by accepting the presidency of this honorable committee. I thank you for your presence despite all your commitments. I have always admired your human qualities and your professional skills. Please accept, through this work, the expression of my gratitude and my deepest respect.

*To Professor Karam Harou
Professor of Gynecology and Obstetrics*

My research supervisor, to whom I owe this beautiful experience. I would like to express my sincere gratitude and respect and thank you for trusting me to turn what once was a simple idea into reality. Thank you for your patience, for guiding my first steps into this work, for your advices, for your pertinent insight, for being a role model to your students and trainees and for your constant availability. For all of that, I am grateful.

*To Professor Nadia Idrissi Litine
Professor of Pediatrics*

The kindness you have shown while receiving this thesis was particularly touching. I thank you for your availability, your kindness and professional dedication that make you a great practitioner. Please find here, the testimony of my high consideration, deep appreciation and sincere respect.

*To Professor Moulay Driss El Amrani
Professor of Plastic Surgery*

I sincerely thank you for the interest you gave to this thesis by accepting to be part of its committee, to evaluate my work and judge my merit to carry the title of Medical Doctor. Also, thank you for introducing me to surgery when I was still a first year medical student, and allowing me to fall in love with this art that I'm hoping to be able to master someday. Please find here the assurance of my respectful and dedicated feelings.

*To Professor Ahmed Rhassane El Adib
Professor of Anesthesia-Resuscitation*

You have granted me a great honor by agreeing to join this committee. You are the example of the professor with great human and professional qualities. I thank you for generosity and humility that you share your knowledge with. Please find here, the expression of my sincere respect and my highest esteem.

To Dr Salaheddine Bajja,

I am sincerely grateful for your help and advices throughout the achievement of this work. You have always answered every question I asked, relentlessly. I couldn't thank you enough for your time and efforts.

To all the volunteers who agreed to take part in the enrichment of this work,

Your generosity and dedication are truly humbling. Thank you.



ABBREVIATIONS



List of abbreviations

ESP	: English for Specific Purposes
EFL	: English as a Foreign Language
EMP	: English for Medical Purposes
ICT	: Information and Communication Technology
OS	: Operating System
HTML	: Hypertext Markup Language
CSS	: Cascading Style Sheets
WP	: WordPress
CMS	: Content Management System
RDBMS	: Relational Database Management System



TABLE OF CONTENT



INTRODUCTION	1
MATERIALS AND METHODS	4
RESULTS	13
I. The platform	14
1. The name	14
2. The logo	15
3. The components	16
4. The content	16
II. The user manual	20
1. Home Page	20
2. About us	24
3. Contact us	26
4. Register	28
5. Learning materials	29
DISCUSSION	48
I. Medical English	49
1. English for specific purposes	49
2. English for Medical Purposes	49
II. E-Learning	56
1. Definition	56
2. Characteristics of e-learning	56
3. The rationale for e-learning	57
4. E-learning and medical education	59
5. E-learning during the COVID-19 pandemic	61
III. Future outlooks	63
CONCLUSION	65
ABSTRACTS	67
BIBLIOGRAPHIE	72



INTRODUCTION



Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

English, often described as the first global lingua franca, is also regarded as the world's most influential language. It is estimated that 400 million people speak English as their first language, and 1.1 billion speak it as a secondary language[1], making it the largest language by number of speakers. It is therefore the world's most widely used language in many fields, among which, scientific publishing.

English is today's dominant language of science, and science, in return, has been pointed out as one of the main fields contributing to the spread of English as a global language. When using a universal language, researchers not only have more exploitable literature to review, but also significantly broaden the reach of their publications. Moreover, a dominant language enables everyone to have easier access to information in presentations, guidelines and standards, which is particularly critical to the medical sector.

However, this situation poses a challenge for millions of people involved in scientific fields who are not native English speakers, as they need to learn a new language alongside their scientific learning process. For this reason, many universities around the world started incorporating English language classes into their program, especially for undergraduate students. Very often, these classes have a special feature: They do not teach general English, but instead, English for Specific Purposes (ESP).

ESP is a learner-centered approach to teaching English as an additional language, which is designed to meet the specific needs of the learners who, beyond the learning of the common language, require a practice regarding certain professional areas. It focuses on developing communicative competence in a specific discipline using a type of content that is exclusively related to this discipline, such as medicine. And in our case, it is called English for Medical purposes (EMP)

EMP, also called "Medical English", refers to the teaching of English for medical students, doctors, nurses and other healthcare professionals. It involves the teaching/learning of English for a utilitarian purpose, typically the successful performance of

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

work and the optimum effectiveness of medical training[2]. It focuses on themes and topics specific to the medical field and also on a restricted range of skills which may be required by the medical learner such as writing a medical paper, preparing a talk for a medical meeting, interacting with an English speaking patient etc.

In 2015, the recent reform of medical studies in Morocco introduced a mandatory course of medical English that caters to first year medical students.

On the other hand, E-learning, which is an umbrella term that describes education using electronic devices and digital media, has become very popular over the last few years, as it represents an easy and comfortable method to achieve knowledge in almost every field, including medicine and health sciences. And although it has its limitations, e-learning comes with several advantages that explain why it remains a great alternative for the traditional face-to-face classroom learning.

It is in this context that the idea of creating a web-based online platform for learning medical English has blossomed, with the aim to establish the first digital platform of its kind in the MENA region, and concurrently, the first medical English learning platform in the world with a focus on Gynecology and Obstetrics. The platform is completely free of charge, providing medical students, physicians and other healthcare professionals, through both a website and a mobile application, with the necessary tools to learn and improve their medical English, in order to widen their access to medical information and allow easier communication with English speaking peers and patients.

This work constitutes a user manual to learn how to use our platform and achieve the full experience by making the most of the resources it offers.



MATERIALS AND METHODS



I. Target audience

Our platform is mainly intended for medical students at all levels of learning, but will also certainly be useful to the following categories:

- General practitioners.
- Doctors following their residency training in the Obstetrics & Gynecology department.
- All healthcare workers wishing to improve their medical English.

The target audience will not be strictly Moroccan, the purpose being to make the platform profitable for a maximum of users from all over the world.

II. Aim of our work

The global objectives of our work are to:

- Create a website and a mobile application both dedicated to medical English E-learning, that will regularly be implemented with new content.
- Allow users to self-educate and self-assess through interactive and constantly updated learning materials.

The more specific objectives of our work are to:

- Provide learners with the necessary language tools in order for them to contribute in research, publish scientific papers and read medical books and periodicals: Due to the acceptance of English in the twentieth century as the international language of

science and medicine, a considerable body of medical research and literature has been produced in English.

- Allow learners to improve their communication skills so they can take part in the international conferences and symposia: With English being the almost exclusive language to these events, it becomes necessary to master it in order to understand and interact with the different presentations and peers, with confidence.
- Provide learners with the basic required knowledge to consider completing an internship abroad or even initiate an international career: In a field as open to the world as medicine, opportunities for international careers only get more available over time. Learning a universal language can only maximize chances to succeed elsewhere.
- Help learners level up their proficiency when it comes to communicating with English speaking patients: For a better patient management, it is imperative to speak the same language. And with Morocco being quite a touristic destination, it is not exceptional to come across English speaking patients seeking medical care.

Overall, this platform will allow students, doctors and allied health professionals to learn at their own pace, from the comfort of their homes, and we are proud to offer it to our users in supporting their professional career development.

III. Learning materials

Our platform combines five different sections with various learning materials to target all aspects of medical English learning.

- **Grammar:** Only when the grammar is correct, do the sentences make sense. Thus, learning basic grammar is important in order to be able to build meaningful sentences with a correct structure, and improve one's language performance.

- **Vocabulary:** It is the basis for the development of all other language skills: Reading comprehension, listening comprehension, speaking and writing. And this is only achieved by acquiring new technical and non-technical words and expressions.
- **Podcast:** Listening to a native speaker reading small texts allows to both learn the correct pronunciation of words, and to improve listening comprehension skills. Furthermore, with the presence of transcripts, it is possible to read along while listening, which works on improving reading comprehension skills.
- **Videocast:** Watching medical students and doctors from all over the world sharing their thoughts about different subjects and answering various questions (rather than listening to only classic learner materials) enables to be better equipped to follow and take part in conversations in the real world, by improving understanding and speaking skills.
- **Key skills:** Learning how to write a research paper, practicing critical appraisal of a scientific article, learning how to break bad news to a patient as well as learning the proper doctor-patient communication etiquette... These and many other must-have skills that every medical student should master and that make a good doctor.

IV. Methods

1. The educational component

As stated above, our platform includes five different learning sections. These sections will be updated and regularly implemented with new content.

Here is a description of all five learning sections that are included in the launch version of our platform:

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

<input type="checkbox"/>	Title	Author	Content	Students	Price	Categories		Date ▲
<input type="checkbox"/>	Grammar	Zaynab	13 sections (32 lessons, 16 quizzes)	4	Free	Medical english	—	Published 2020/08/15
<input type="checkbox"/>	Vocabulary	Zaynab	6 sections (48 lessons, 1 quiz)	6	Free	Medical english	—	Published 2020/08/16
<input type="checkbox"/>	Key skills	Zaynab	2 sections (3 lessons)	3	Free	Medical english	—	Published 2020/08/17
<input type="checkbox"/>	Title	Author	Content	Students	Price	Categories		Date ▲

Figure 1 Overview of the learning sections as they appear on Wordpress.

<input type="checkbox"/>	Name	Description	Slug	Count
<input type="checkbox"/>	Podcast	—	podcast	10
<input type="checkbox"/>	Videocast	—	videocast	9
<input type="checkbox"/>	Name	Description	Slug	Count

Figure 2 Overview of the learning sections as they appear on Wordpress.

Grammar:

- The lessons are inspired mainly from: “**The Oxford Guide to English Grammar**”, by John Eastwood.[3]

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

- The exercises are inspired mainly from: **“Oxford English Grammar: The Advanced Guide Answer Book”** by B. Hathorn; L. Hoepner; B. Jeffery; M. Steynberg; J. Linnegar.[4]
- All the examples used are related to Obstetrics & Gynecology.
- The content was entirely reviewed, proofread and approved by an English language teacher.

Vocabulary:

- The lessons are inspired mainly from: **“Anglais medical”** by Mireille Mandelbrojt-Sweeney; Eileen Sweeney[5] and from **“Medical English”** (2006) by Ramon Ribes; Pablo R. Ros.[6]
- The entire content of this section is related to Obstetrics & Gynecology.

Key skills:

- The lessons are inspired from various articles listed on PubMed (each article is cited at the end of the appropriate lesson).

Podcast:

- The podcast was recorded using a smart phone.
- The voice belongs to an American physician who volunteered for this section.
- The paragraphs are inspired from various PubMed articles (each one is cited at the end of the appropriate paragraph).

Videocast:

- The videos were filmed using smart phones.
- Each video belongs to a medical student who volunteered for this section.

- Each video answers a question chosen by the student among a list of questions related to the medical field.

2. The technical component

a. The mobile application

Here is an overview of the various technologies and tools used to develop our mobile application:

- Android Webview:

Android WebView is a system component for the Android operating system (OS) that allows Android apps to display content from the web directly inside an application.

- Adobe XD (UX/UI Design):

Adobe XD is a vector-based digital design tool for websites and apps. It is used to design and collaborate on everything from prototypes to mockups to full designs, in order to create user interfaces for mobile and web apps.

- Android Studio:

Android Studio is the official integrated development environment for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development.

b. The website

Here is an overview of the various technologies and tools used to develop our website:

- HTML:

HTML is short for Hypertext Markup Language. HTML is used to create electronic documents (called pages) that are displayed on the World Wide Web. Each page

contains a series of connections to other pages called hyperlinks. Every web page you see on the Internet is written using one version of HTML code or another.

- **CSS:**

CSS stands for Cascading Style Sheets with an emphasis placed on “Style.” While HTML is used to structure a web document (defining things like headlines and paragraphs, and allowing you to embed images, video, and other media), CSS comes through and specifies your document’s style—page layouts, colors, and fonts are all determined with CSS.

- **JavaScript:**

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web applications.

- **WordPress:**

WordPress (WP) is a free and open-source content management system (CMS). A content management system is basically a tool that makes it easy to manage important aspects of a website – like content – without needing to know anything about programming.

- **MySQL Database:**

MySQL is a freely available open source Relational Database Management System (RDBMS) that uses Structured Query Language (SQL).

SQL is the most popular language for adding, accessing and managing content in a database. It is most noted for its quick processing, proven reliability, ease and flexibility of use.

- **Linux Server (Ubuntu OS):**

A Linux server is a variant of the Linux operating system that is designed to handle more intense storage and operational needs of larger organizations and their software. Linux servers are widely used today and considered amongst the most popular due to their stability, security, and flexibility, which outstrip standard Windows servers.

- **Adobe XD (UX/UI Design):**

Adobe XD is a vector-based digital design tool for websites and apps. It is used to design and collaborate on everything from prototypes to mockups to full designs, in order to create user interfaces for mobile and web apps.

- **Visual Studio Code:**

Visual Studio Code is a code editor. It is a free-editor which helps the programmer to write code, helps in debugging and corrects the code using the intelli-sense method. In normal terms, it facilitates users to write the code in an easy manner.

V. Ethical considerations

The permission required to upload the videos and the recordings online was verbally obtained from the volunteers who took part in the development of the Videocast section and the Podcast section, after the purpose of our work was thoroughly explained to each one of them.



RESULTS



I. The platform

1. The name:

The name that we have chosen for our platform is: **EnGyn'O**.

It is a combination of three different words, and a reflection of our platform's content.

English + Gynecology + Obstetrics = EnGyn'O

2. The logo:

The logo that we have chosen for our platform is the following:



Figure 3 The logo of Engyn'O

It shows two discussion bubbles:

- The first one is in a gradient of magenta, which represents Gynecology & Obstetrics.
- The second one is in Union Jack colors, which represents the English language.

The logo, therefore, symbolizes a dialog in English with Gynecology & Obstetrics as a theme to it.

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

3. The components:

Our platform consists of two parts:

- A website: www.engyno.com

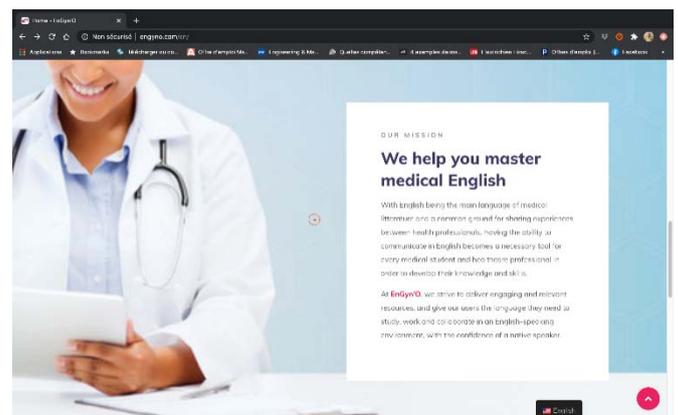


Figure 4 Screenshots from the website

- A mobile application: EnGyn'O.

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

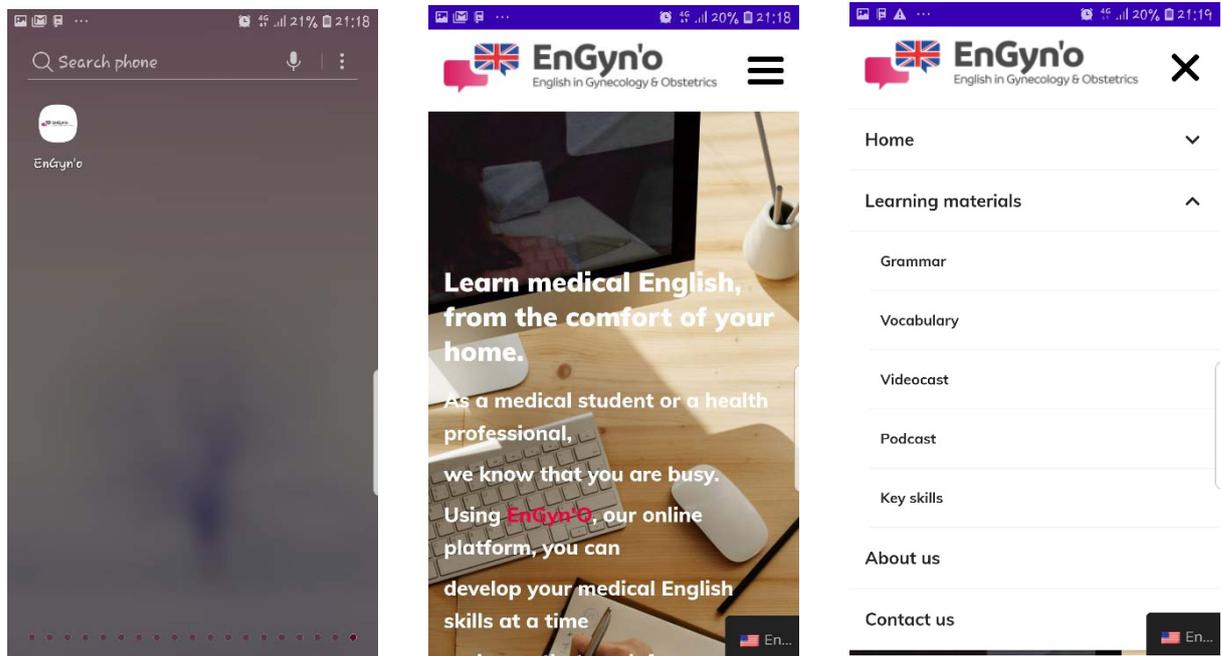


Figure 5 Screenshots from the mobile application

- The website is accessible through any internet navigator.
- The mobile application will only be available for Android users.
- Since it uses the Android WebView technology, the mobile application offers the exact same content as the website does. This technology, as explained earlier, allows to display content from the website directly inside the application without the need to any further update.

4. The content:

The launch version of our platform hosts five different learning sections, each one offers a variety of learning materials distributed as follows:

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

- **Grammar:**
 - 32 lessons
 - 15 exercises
 - 1 final general quiz

The screenshot displays a WordPress interface for the Grammar section. It features a list of topics with their respective item counts and expand/collapse icons:

- Parts of speech: 9 Items
- Phrases: 6 Items
- Clauses & sentences: 5 Items
- Singular-Plural: 3 Items
- Tenses: 6 Items
- Degrees of comparison: 2 Items
- Active voice & passive voice: 2 Items
- Articles: 2 Items
- Prepositions: 2 Items

Below the list, there is a section titled "Describe about this section" which includes a "Select items" button and a list of items:

- Degrees of comparison
- Exercise
- Create a new lesson

Figure 6 Overview of the Grammar section as it appears on Wordpress

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

- **Vocabulary:**
 - 1 glossary
 - 1 acronyms and abbreviations glossary
 - 7 lessons
 - 1 final general quiz

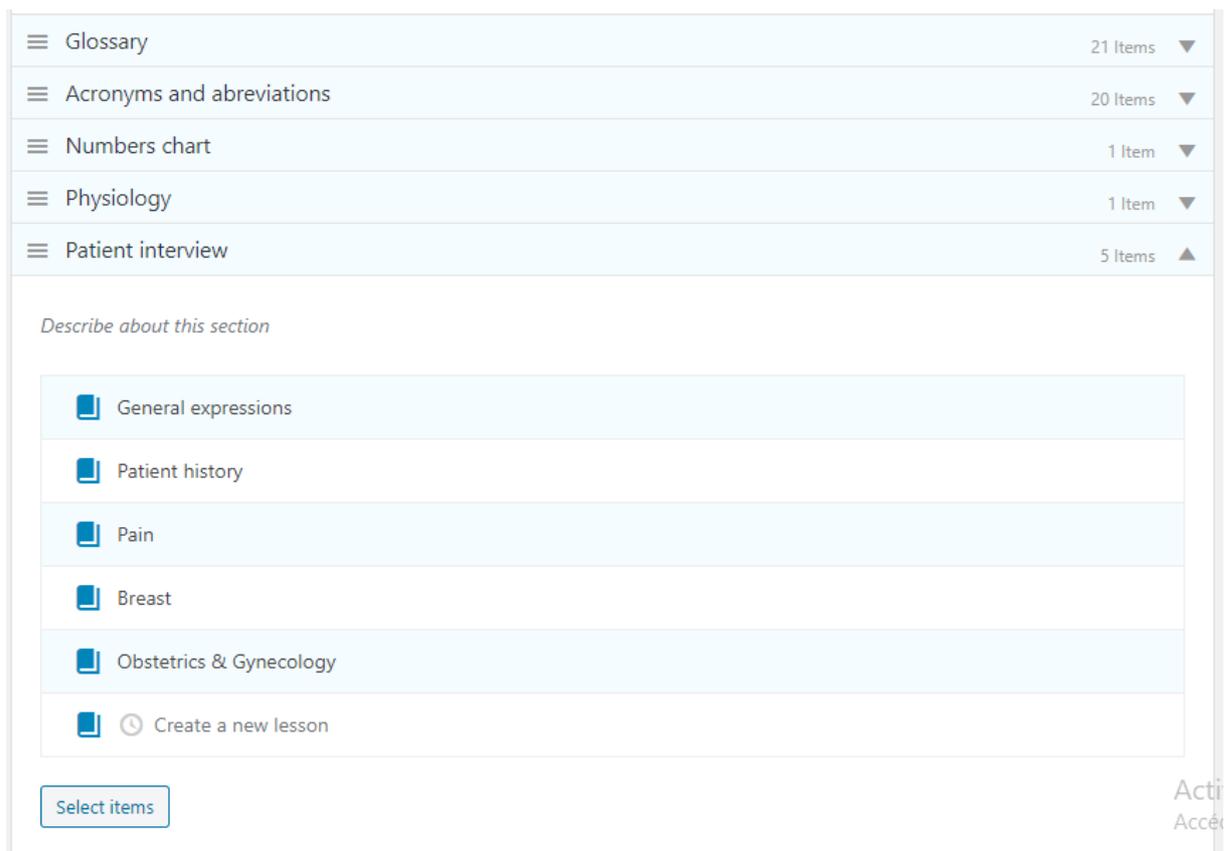


Figure 7 Overview of the Vocabulary section as it appears on Wordpress

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

- **Key Skills:**
 - 2 lessons
 - 1 practice part

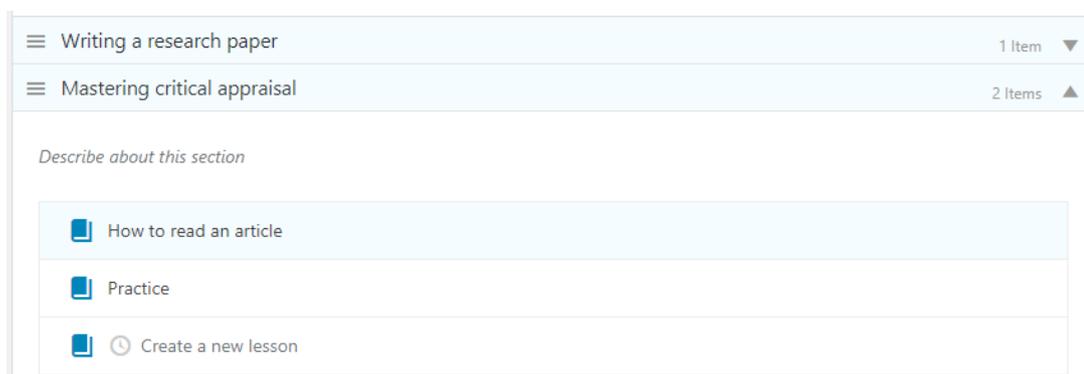


Figure 8 Overview of the Key Skills section as it appears on Wordpress

- **Podcast:**
 - 10 recordings
 - 10 texts taken from published articles
- **Videocast:**
 - 9 self-made videos

<input type="checkbox"/>	What is something that medical school taught you, that you feel grateful for ?	Zaynab	Videocast	—	—	Published 2020/08/19
<input type="checkbox"/>	What was your favourite subject in medical school ? <small>Edit Quick Edit Trash View</small>	Zaynab	Videocast	—	—	Published 2020/08/19
<input type="checkbox"/>	What kind of doctor do you want to become, and why ?	Zaynab	Videocast	—	—	Published 2020/08/19
<input type="checkbox"/>	Abnormal Uterine Bleeding	Zaynab	Podcast	—	—	Published 2020/08/11
<input type="checkbox"/>	Patient History in Chronic Pelvic Pain	Zaynab	Podcast	—	—	Published 2020/08/11
<input type="checkbox"/>	Ovaries: Gross Anatomy	Zaynab	Podcast	—	—	Published 2020/08/11
<input type="checkbox"/>	Menopause	Zaynab	Podcast	—	—	Published 2020/08/11
<input type="checkbox"/>	Covid-19 pandemic and pregnancy: Labor, Delivery and Breastfeeding	Zaynab	Podcast	—	—	Published

Figure 9 Overview of the Podcast and the Videocast sections, as they appear on Wordpress

II. The user manual

This chapter is a demonstration on how to make the most out of the platform. It consists of screenshots with explanations.

Since the website offers the exact same content as the mobile application, with the mobile application relying on the WebView technology, we are going to use the website as an example for this demonstration.

1. Home Page:



Figure 10 Home Page (1)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

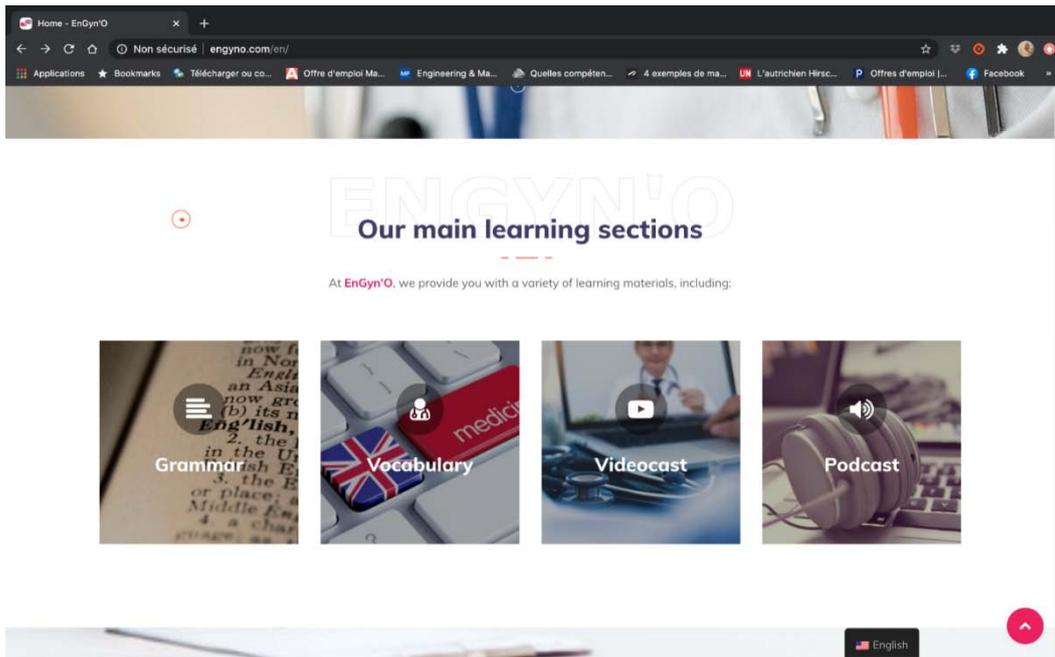


Figure 11 Home Page (2)

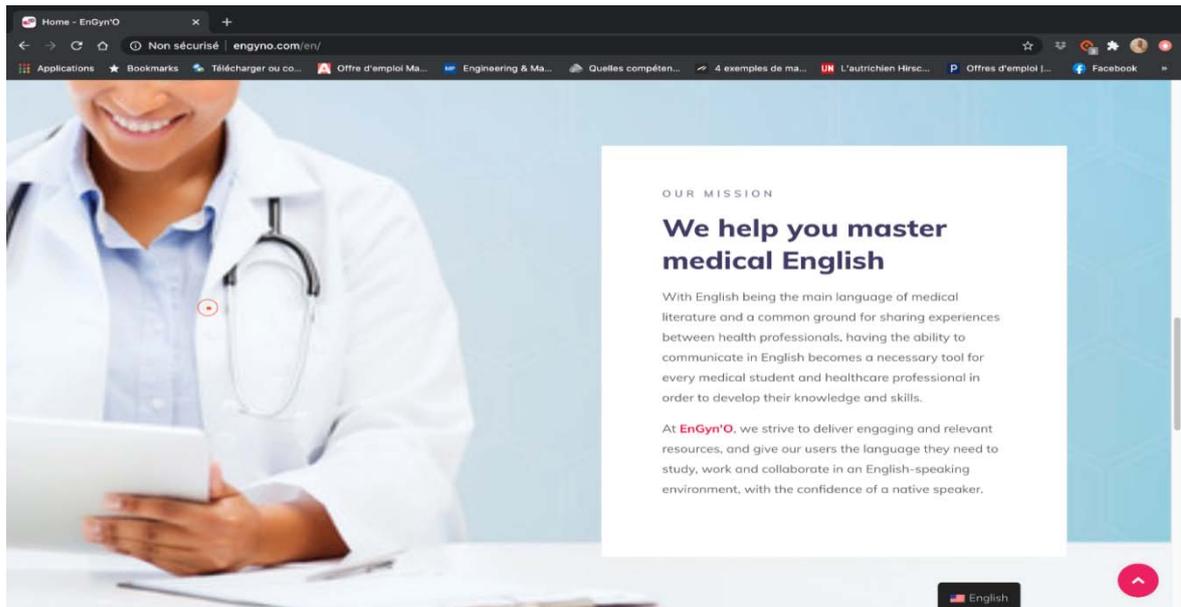


Figure 12 Home Page (3)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

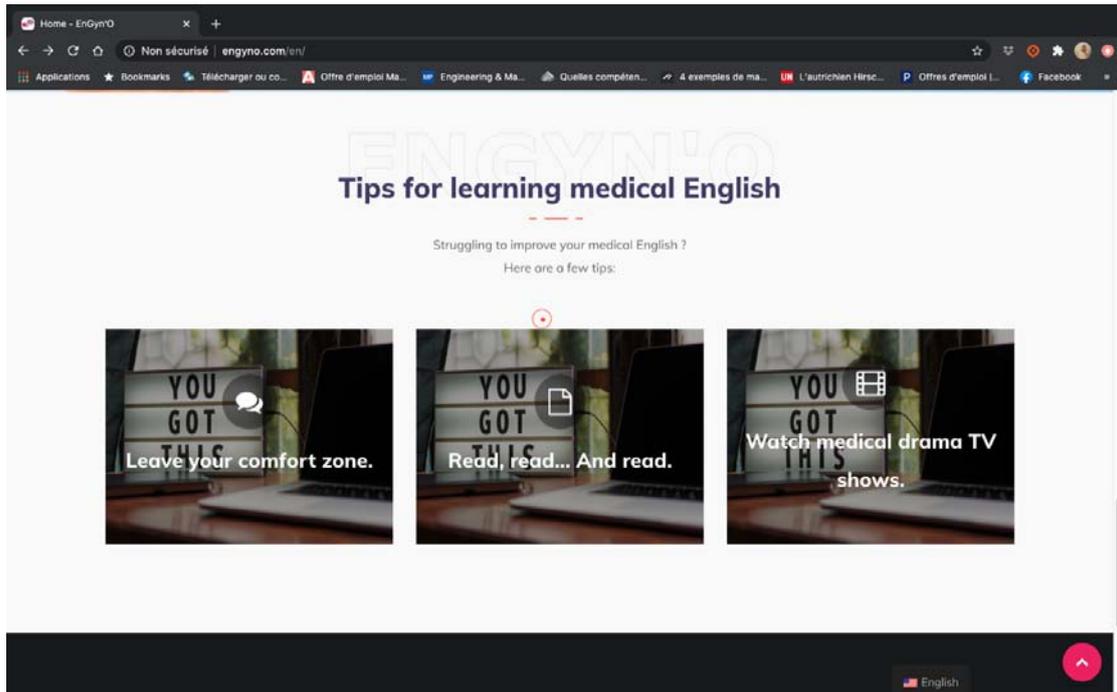


Figure 13 Home Page (4)

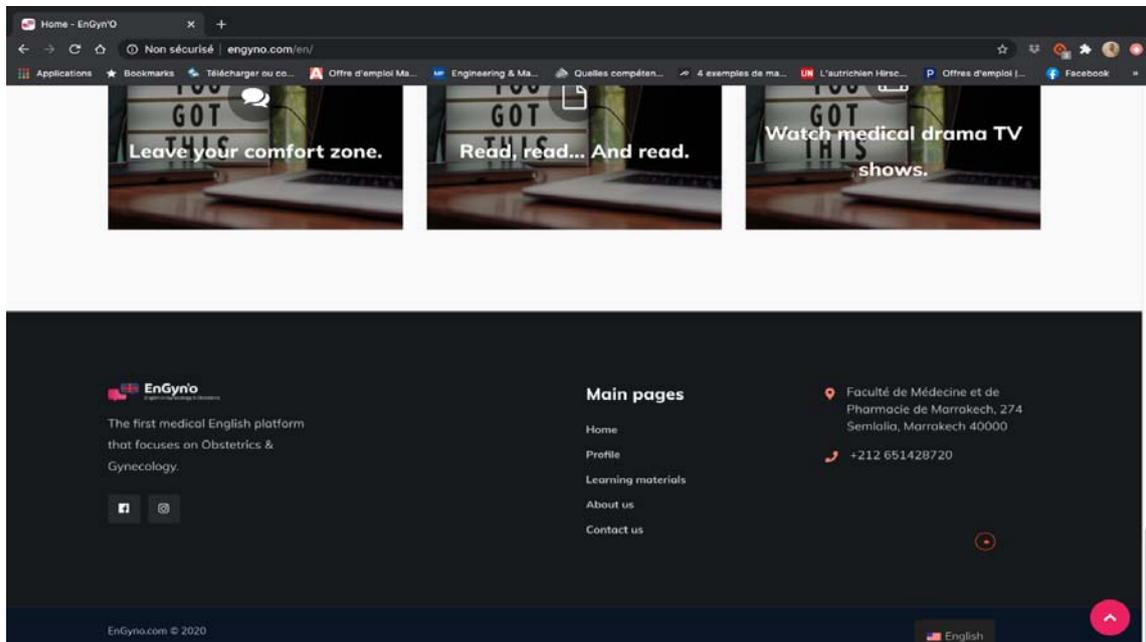


Figure 14 Home Page (5)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

This Home Page is the first page to appear when you go on www.engyno.com.

Figure 10:

- On top of the page is the “header menu” that shows the different pages you have access to:
 - Home
 - Learning Materials
 - About Us
 - Contact Us
- One way to create an account in order to start learning, is to click on: “Get started now”. It will redirect you to the “Register/Log in” page.

Figure 11:

- When you scroll down, you find a glimpse of the learning sections available on the website.
- When you hover over each section, it causes the image to flip and display a brief description of the section.

Figure 12:

- When you scroll further down, you come across a description of what we consider to be our mission, at EnGyn’O.

Figure 13:

- When you scroll down further, you find three tips for a better grasp of medical English.
- When you go over each tip with the mouse without clicking, it causes the image to flip and display a more detailed version of the tip.

Figure 14:

- On bottom of the page is the “footer menu” that shows the same pages as the header menu.

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

- On this part of the page, you also find:
 - Contact informations (Post Address and phone number)
 - A link to the official Facebook page of EnGyn'O.
 - A link to the official Instagram account of EnGyn'O.

2. About us:

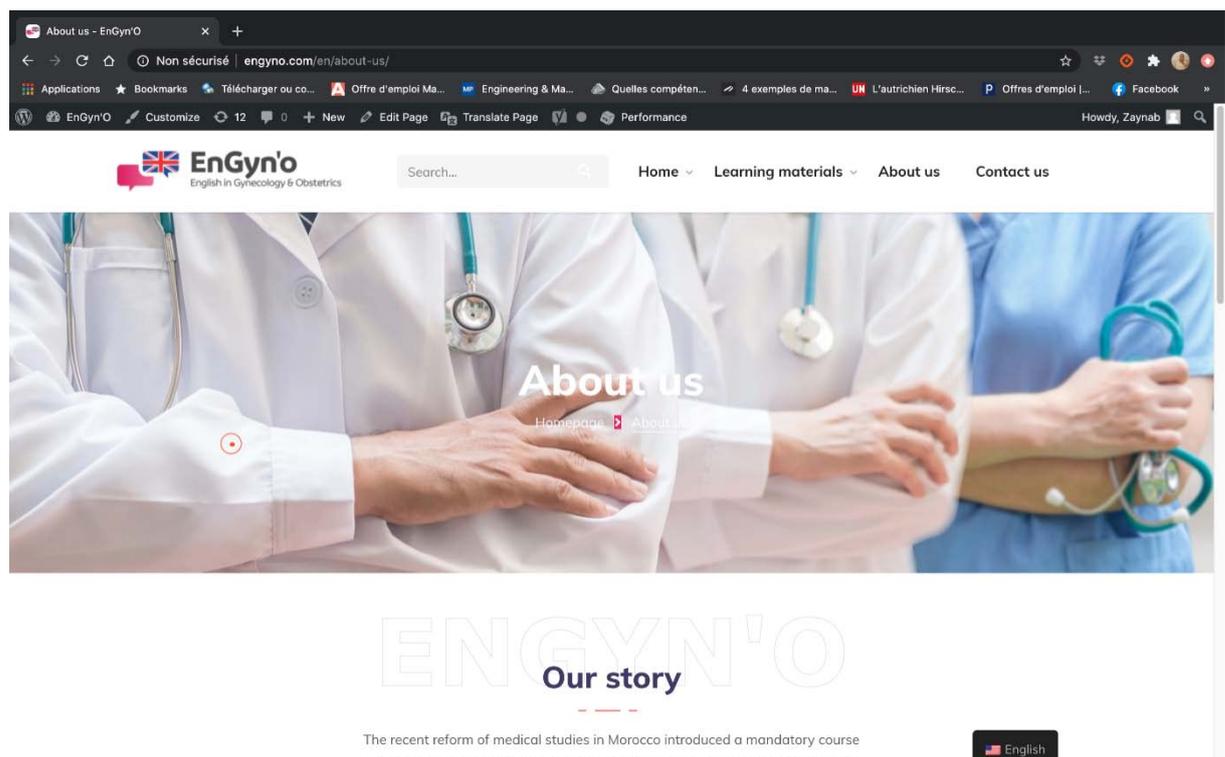


Figure 15 About us page (1)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

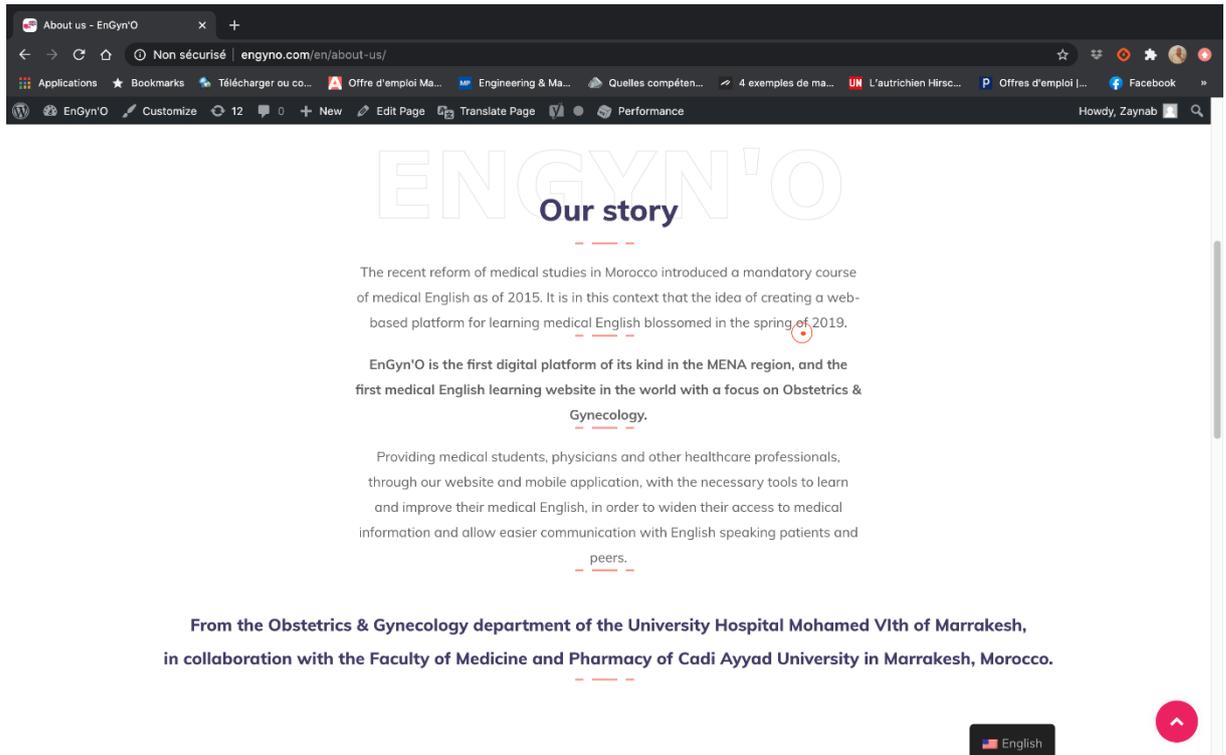


Figure 17 About us page (2)

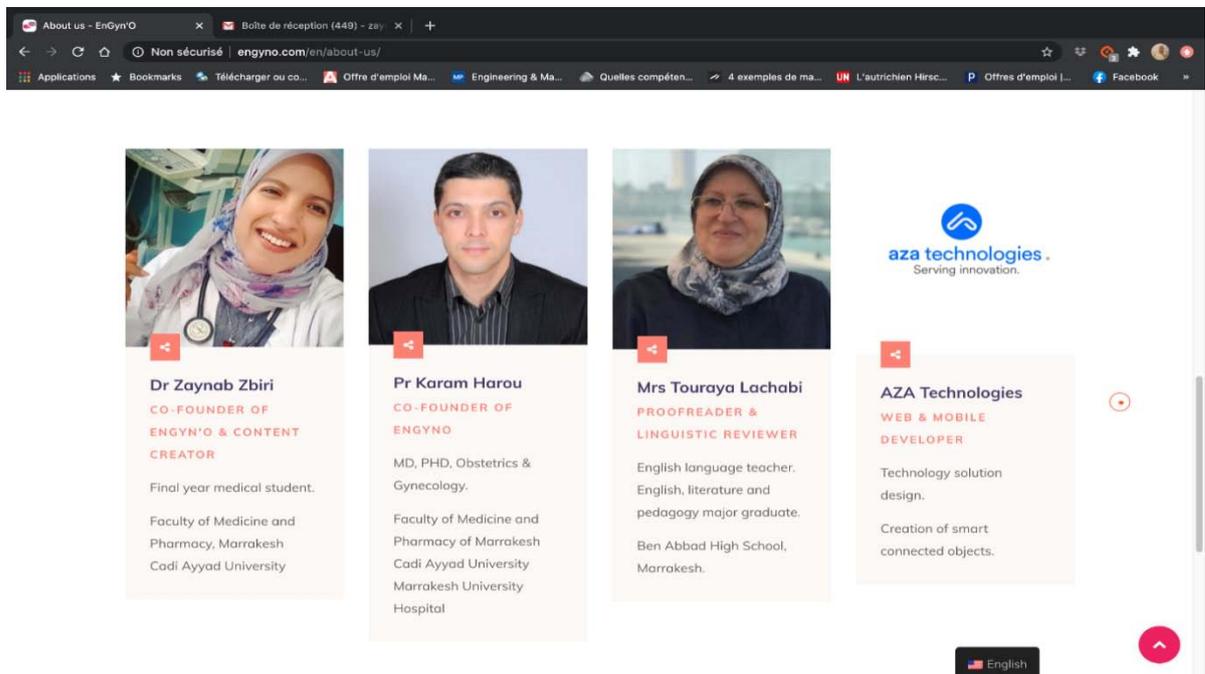


Figure 16 About us page (3)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

You can access the “About us” page from the header menu that appears on top of every page of the website.

Figure 16:

- On this page you can read a summary of the story behind EnGyn'O.

Figure 17:

- When you scroll down further, you get to know the members of the team behind the creation and the design of EnGyn'O.

3. Contact us:

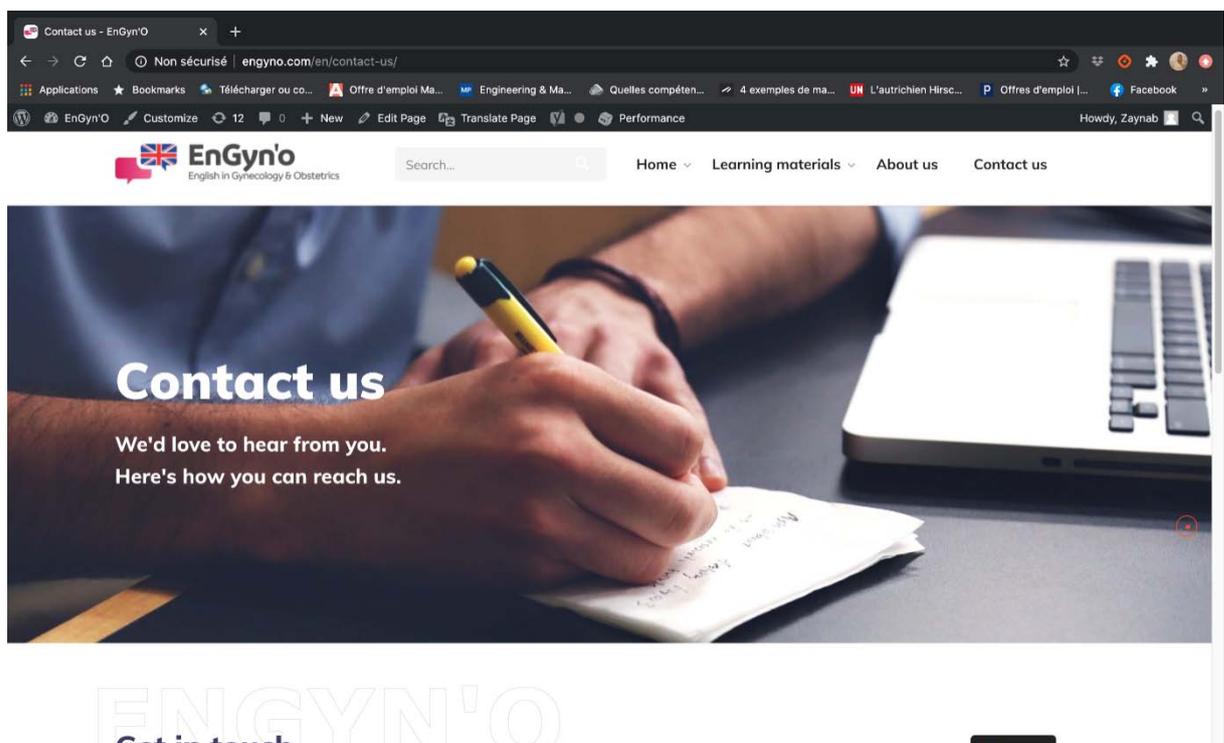


Figure 18 Contact us page (1)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

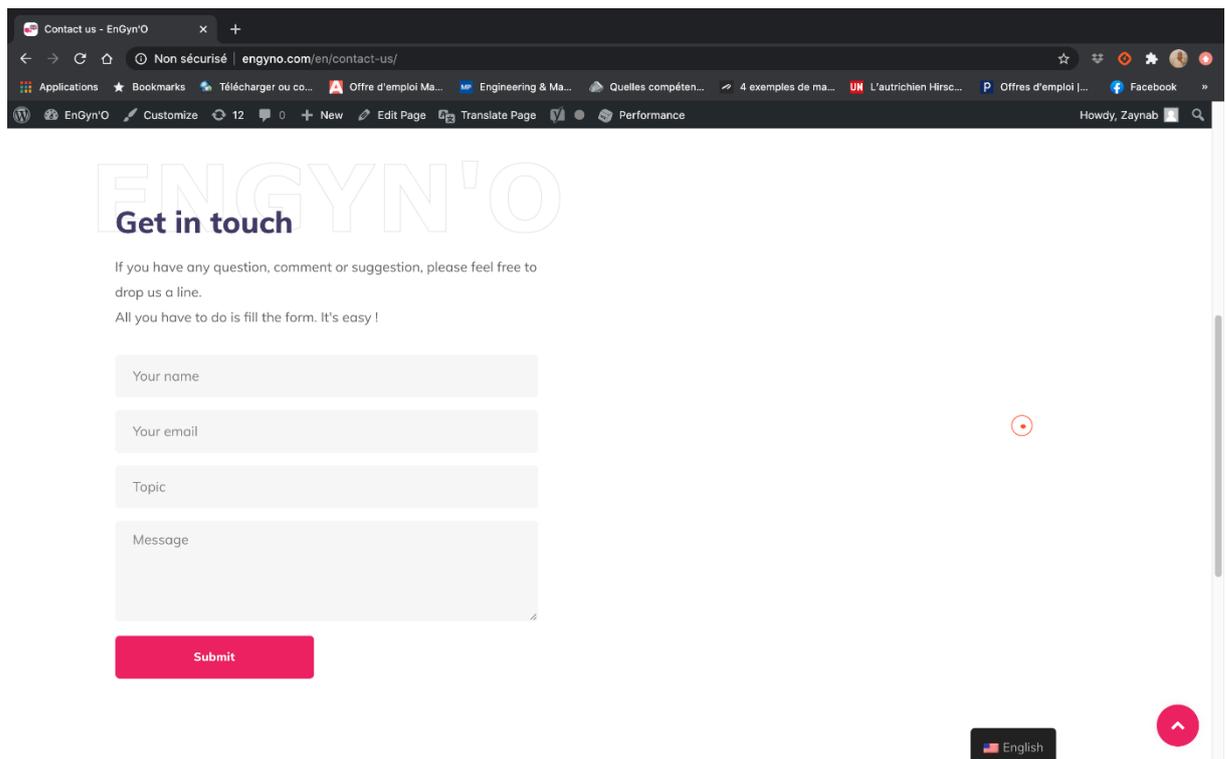


Figure 19 Contact us page (2)

You can access the “Contact us” page from the header menu that appears on top of every page of the website.

Figure 19:

- On this page you can get in touch with our team by filling the form and submitting your comments, questions or suggestions.

4. Register:

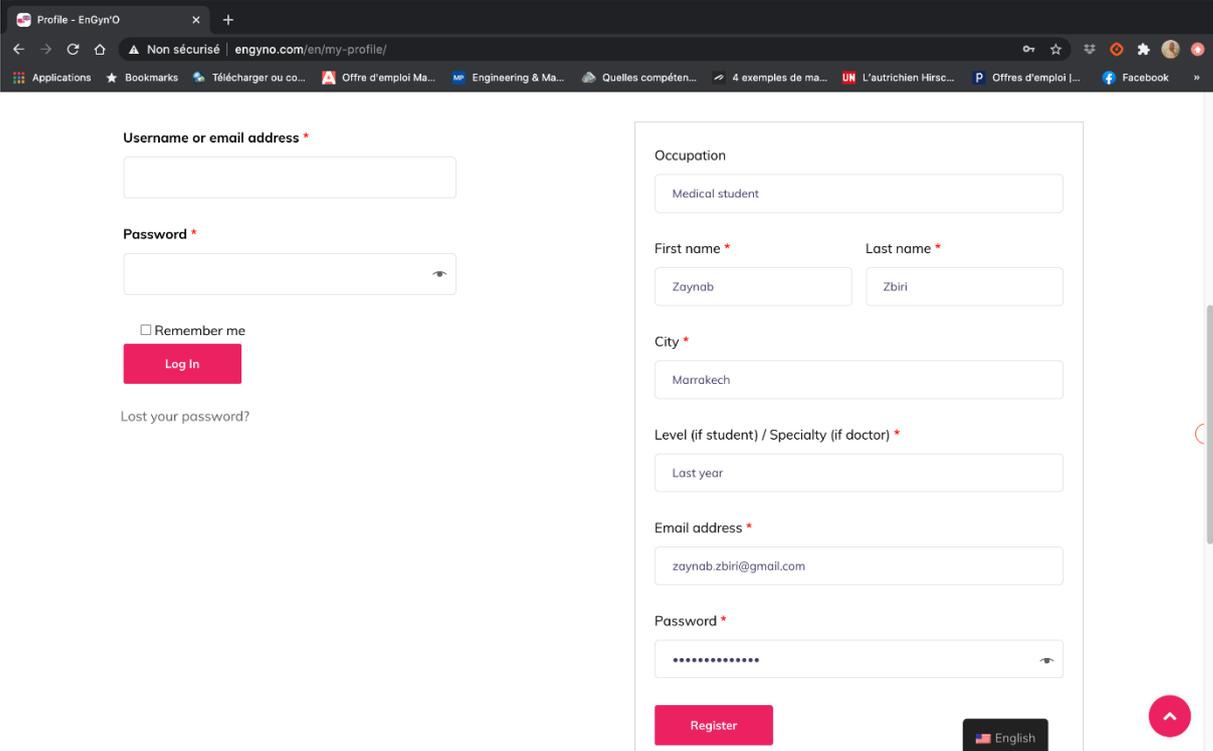


Figure 20 Log in / Register page

You can access the “Log in/Register” page either:

- From the header menu that appears on top of every page of the website, through the “Home” drop-down-menu
- By clicking “Get started now” on the Home page.

Figure 20:

- In order to create an account on EnGyn’O, you must register by submitting the required informations and clicking the “Register” button.
- The same account is used both on the website and on the mobile application.
- You will then receive an email that confirms your registration.
- If you already have an account, you should log in on the same page.

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

5. Learning materials:

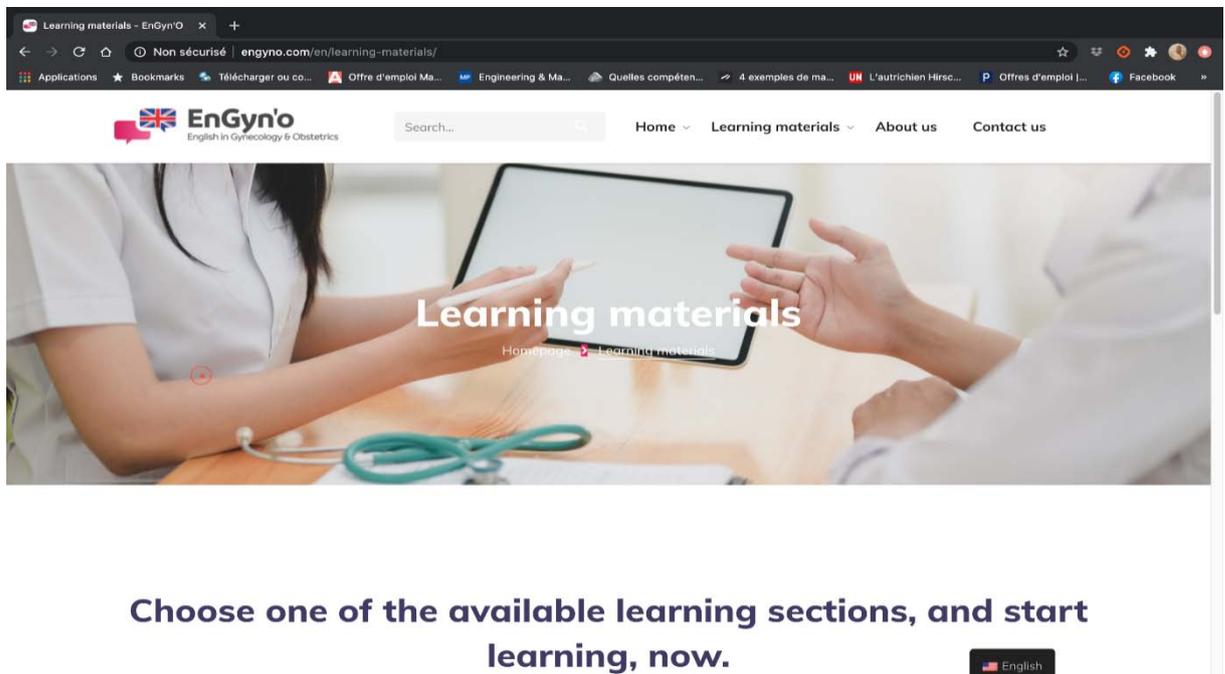


Figure 21 Learning materials page (1)

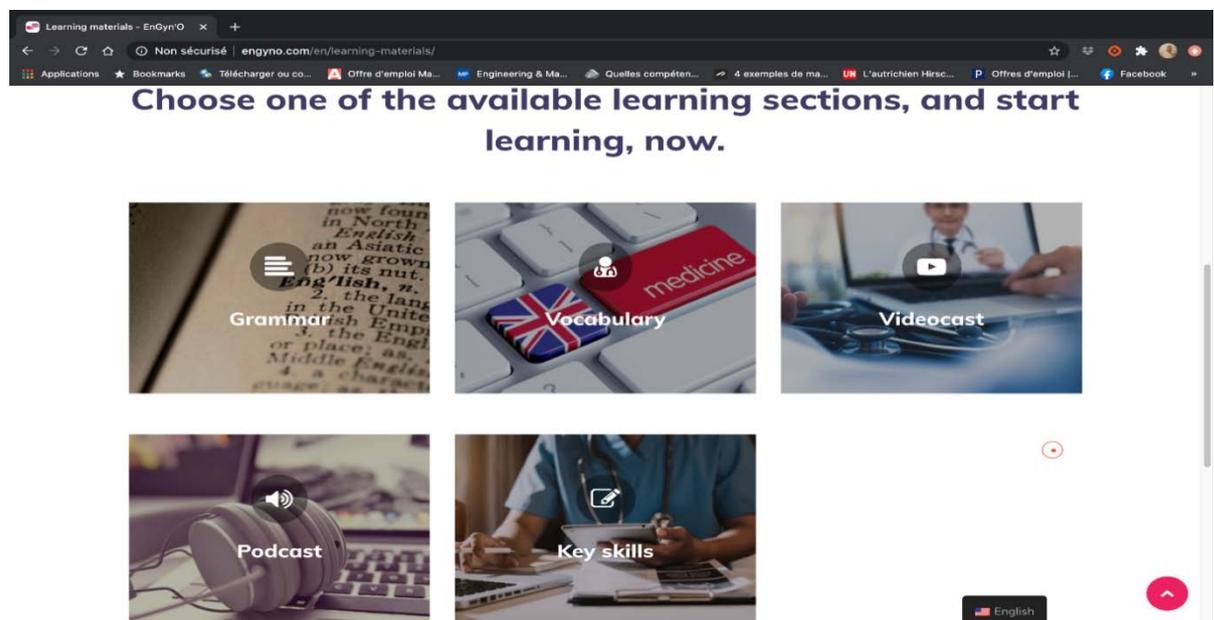


Figure 22 Learning materials page (2)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

You can access the “Learning materials” page from the header menu that appears on top of every page of the website.

Figure 22:

- This page displays the five available learning sections:
 - Grammar
 - Vocabulary
 - Key Skills
 - Podcast
 - Videocast
- When you hover over each section, it causes the image to flip and display a more detailed description of the section.

a) **Grammar:**

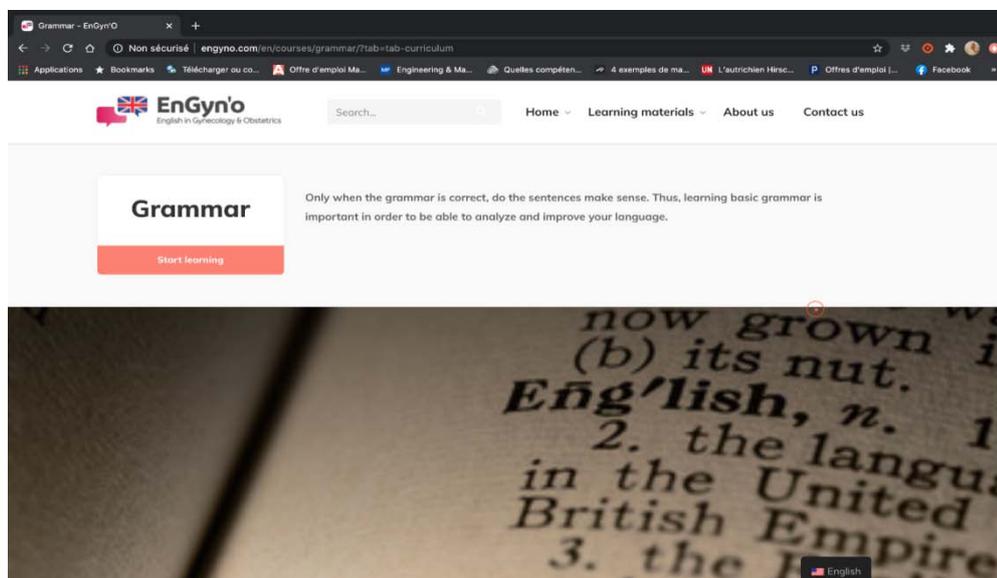


Figure 23 Grammar section (1)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

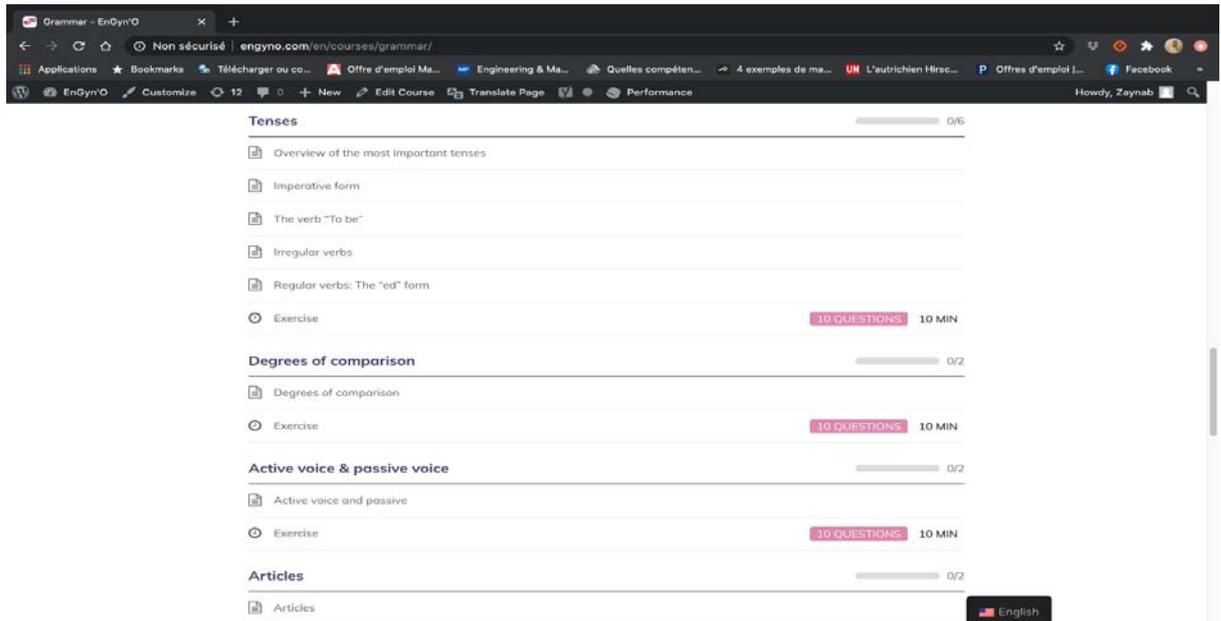


Figure 24 Grammar section (2)

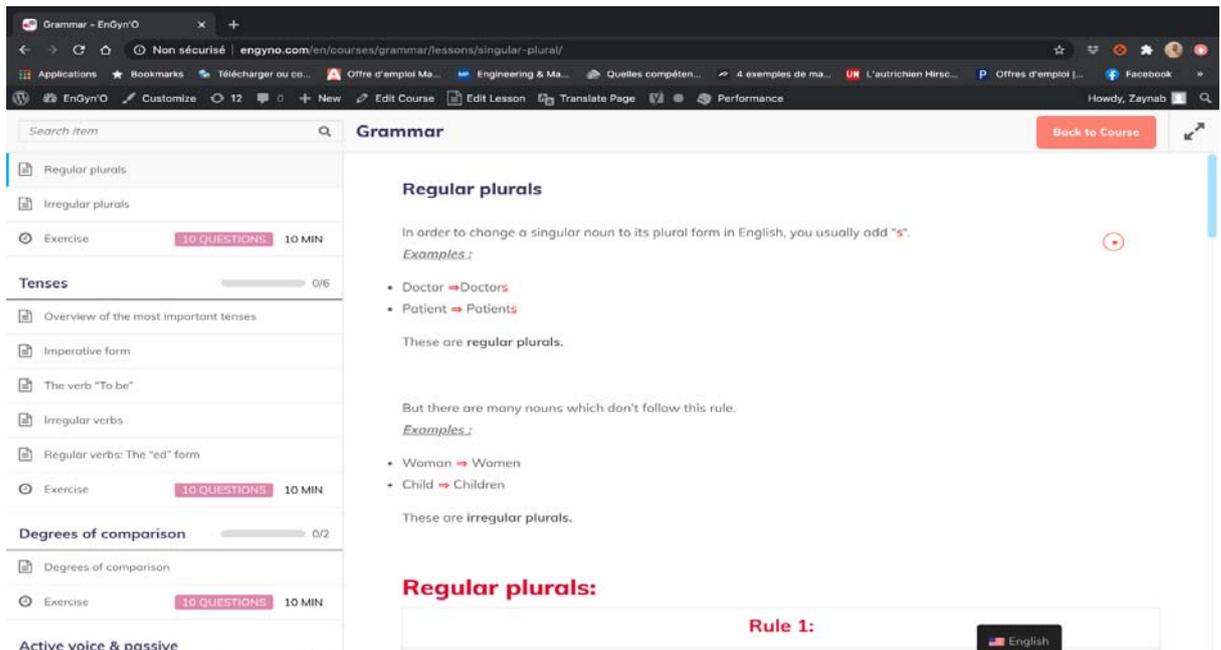


Figure 25 Grammar section (3)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

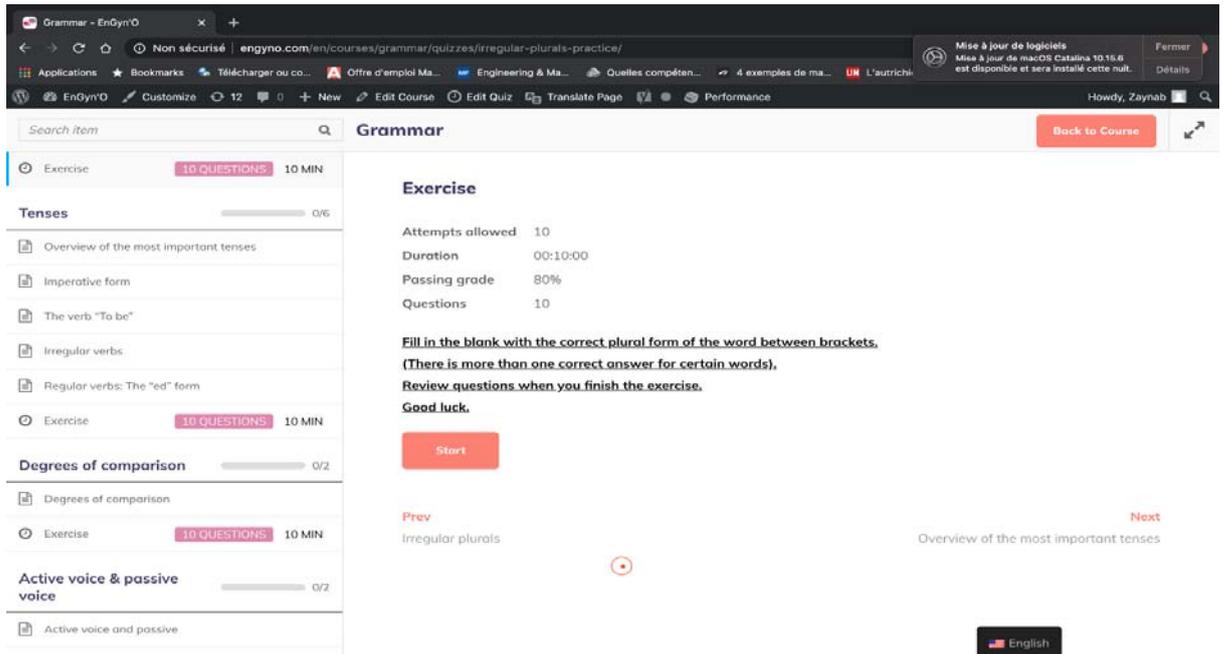


Figure 26Grammar section (4)

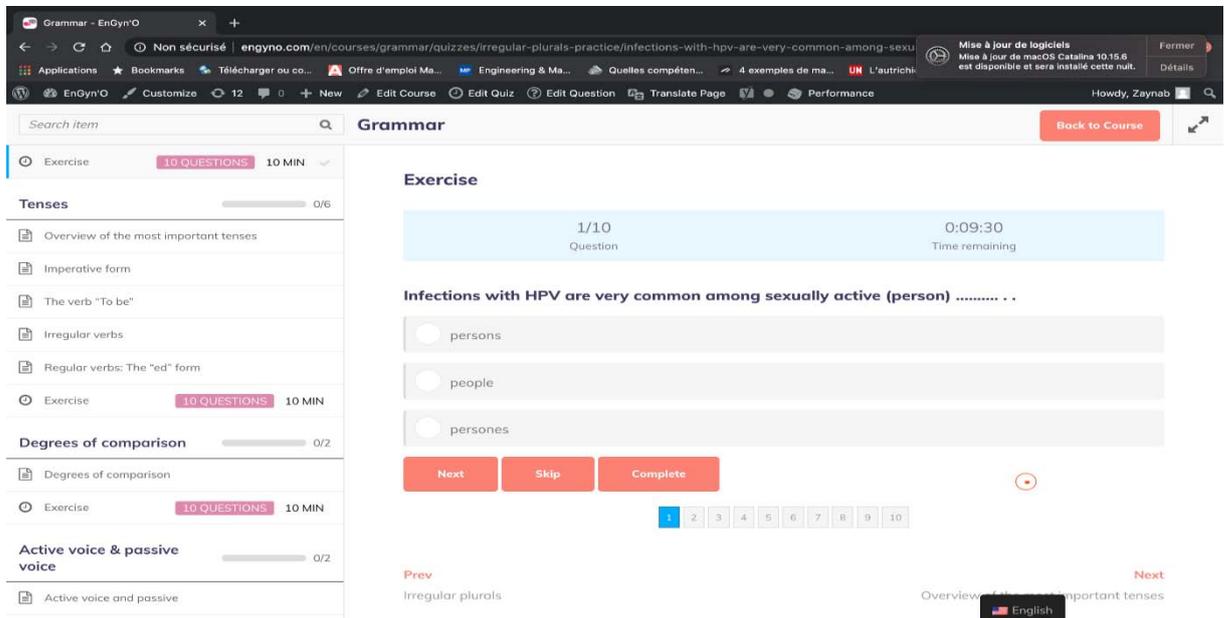


Figure 27Grammar section (5)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

The screenshot shows a web browser interface for the 'Grammar' section of the Engyno website. The page is titled 'Grammar' and features a sidebar on the left with a search bar and a list of grammar topics. The main content area displays the results of a quiz. The results are as follows:

Metric	Value
Time spend	08:46
Point	16 / 18
Questions	10
Correct	9
Wrong	1
Skipped	0

The page also includes instructions for the quiz: 'Fill in the blank with the correct plural form of the word between brackets. (There is more than one correct answer for certain words). Review questions when you finish the exercise. Good luck.' There are buttons for 'Review' and 'Redo (+10)' at the bottom of the results section.

Figure 28 Grammar section (6)

You can access the “Grammar” section from:

- The header menu that appears on top of every page of the website, through the Learning materials drop-down-menu.
- The Learning materials page.
- The Home page.

Figure 23:

- Begin by clicking on “Start learning” in order to enroll in this section.

Figure 24:

- The page displays a list of the lessons available to learn from, with their appropriate exercises and the final quizzes.
- You can choose whatever item you are interested in by simply clicking its name.

Figure 25:

- This is what a lesson looks like once you have clicked it.
- On the left of the page, you have the same list seen on the previous page, from where you can choose another lesson or exercise.

Figure 26:

- This is what an exercise looks like once you've clicked it.
- It shows the instructions, the time allowed, the number of questions and the passing grade.
- When you are ready, you click on "Start" to begin answering.

Figure 27:

- The exercises are either SCQ or MCQ.
- You choose the right answer, then you click on "next".
- You can choose to skip a question if you wish to by clicking the "skip" button.
- You should finish the exercise before the time is up.
- This same format applies to the final quizzes.

Figure 28:

- This summary shows up when you complete the exercise.
- You can choose to review the right answers by clicking the "Review" button.
- You can do the exercise once again by clicking the "Redo" button.
-

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

b) Vocabulary

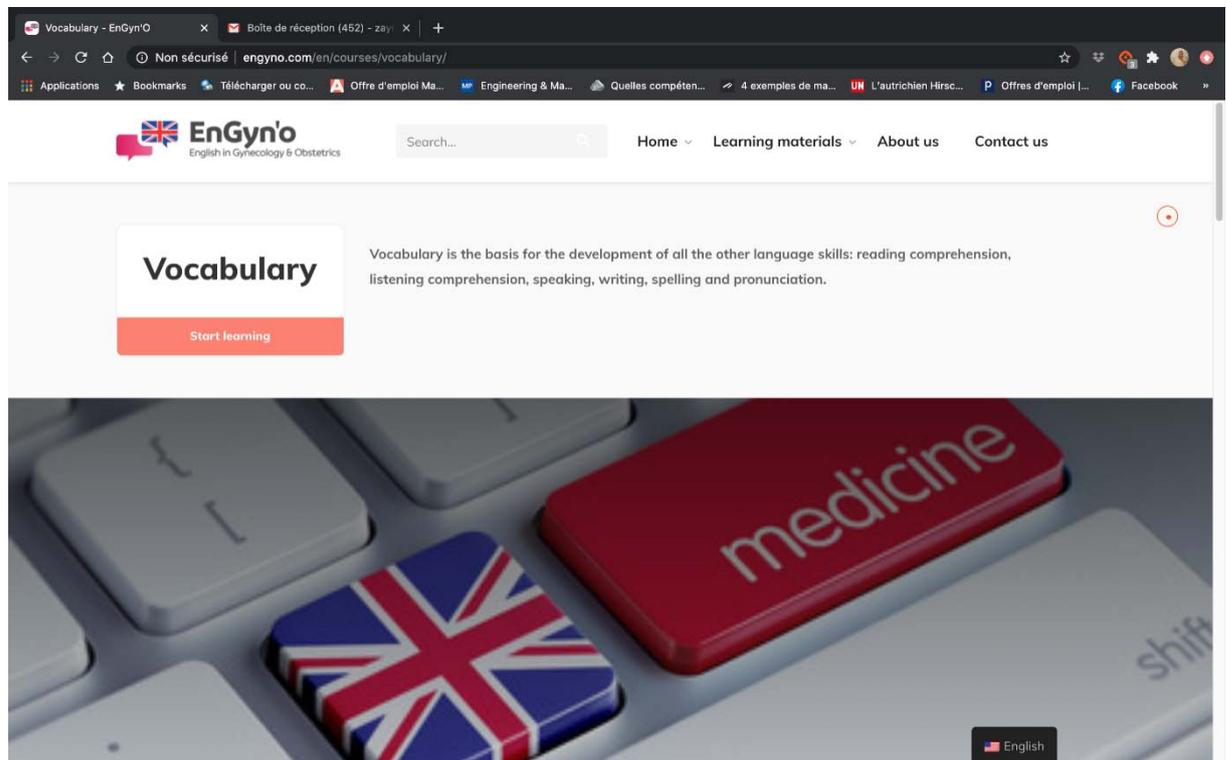


Figure 29 Vocabulary page (1)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

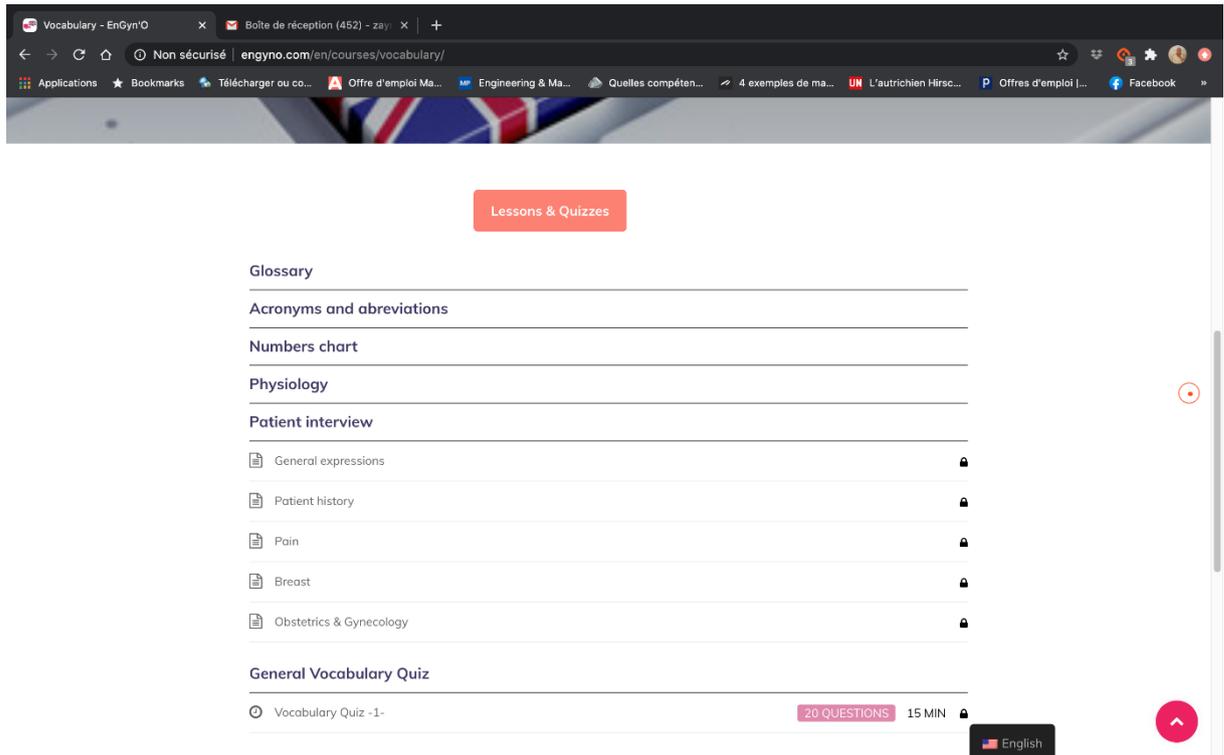


Figure 31 Vocabulary page (2)

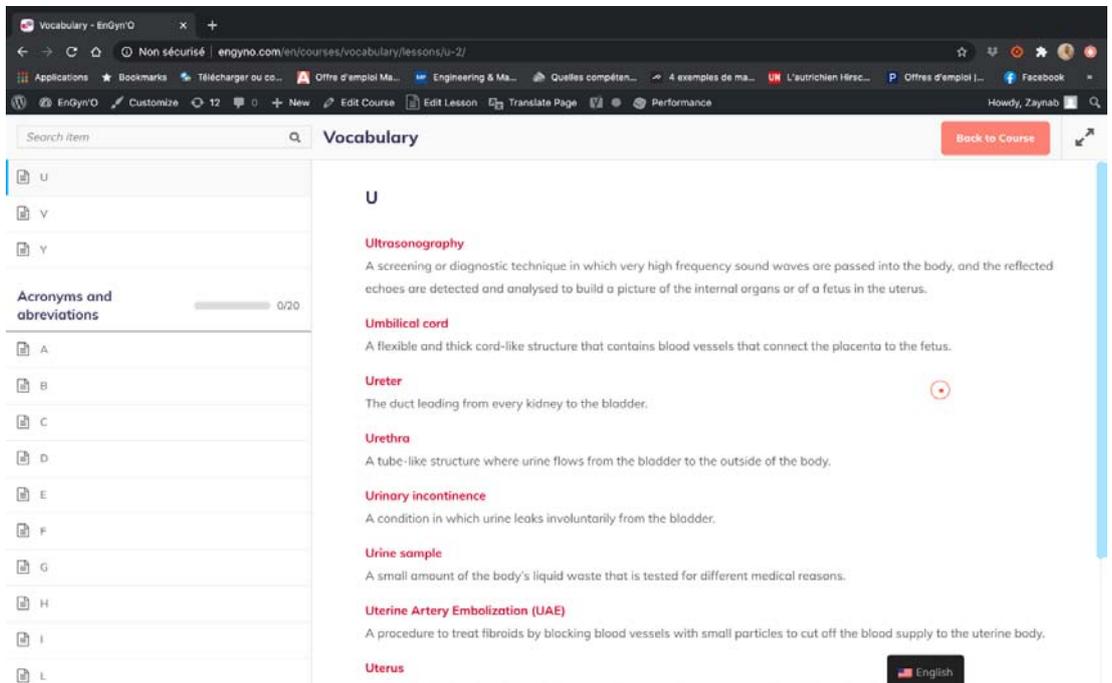


Figure 30 Vocabulary page (3)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

Vocabulary

Patient History
Interrogatoire du patient

Généralités	Miscellaneous
Bonjour, comment vous appelez-vous?	Hello, what is your name ?
- Nom de famille	- Surname
- Prénom	- First name
Quel âge avez-vous ?	How old are you ?
Quel est votre motif de consultation aujourd'hui ?	What brings you here today ?
Où avez-vous mal ? Montrez-moi avec la main.	Where do you feel pain ? Show me with your hand.
Etat général	General health questions
Combien pesez-vous ?	How much do you weigh ?
Votre poids :	Your weight :

Figure 32 Vocabulary page (4)

Vocabulary

Vocabulary Quiz -1-

1/20 Question 0:14:41 Time remaining

"Many women have suffered from breast cancer in my family. That's why my doctor says I need to get a ... regularly in order to look for abnormalities."

blood test

ultrasound

mammogram

Next Skip Complete

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Prev English

Figure 33 Vocabulary page (5)

You can access the “Vocabulary” section from:

- The header menu that appears on top of every page of the website, through the Learning materials drop-down-menu.
- The Learning materials page.
- The Home page.

Figure 29:

- Begin by clicking on “Start learning” in order to enroll in this section.

Figure 30:

- The page displays a list of the lessons available to learn from, with their appropriate exercises and the final quizzes.
- You can choose whatever item you are interested in by simply clicking its name.

Figure 31:

- This is what a lesson looks like once you’ve clicked it. Here, it is a page from the Glossary.
- On the left of the page, you have the same list seen on the previous page, from where you can choose another lesson or exercise.

Figure 32:

- This is another example of a lesson.
- On the left of the page, you have the same list seen on the previous page, from where you can choose another lesson or exercise.

Figure 33:

- This is what the final quiz looks like once you’ve clicked it.
- It’s a SCQ and comes in the same format as the exercises.
- You choose the right answer, then you click on “next”.
- You can choose to skip a question if you wish to by clicking the “skip” button.
- You should finish the quiz before the time is up.

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

- A summary of your results appears when you have finished the quiz.

c) **Key skills:**

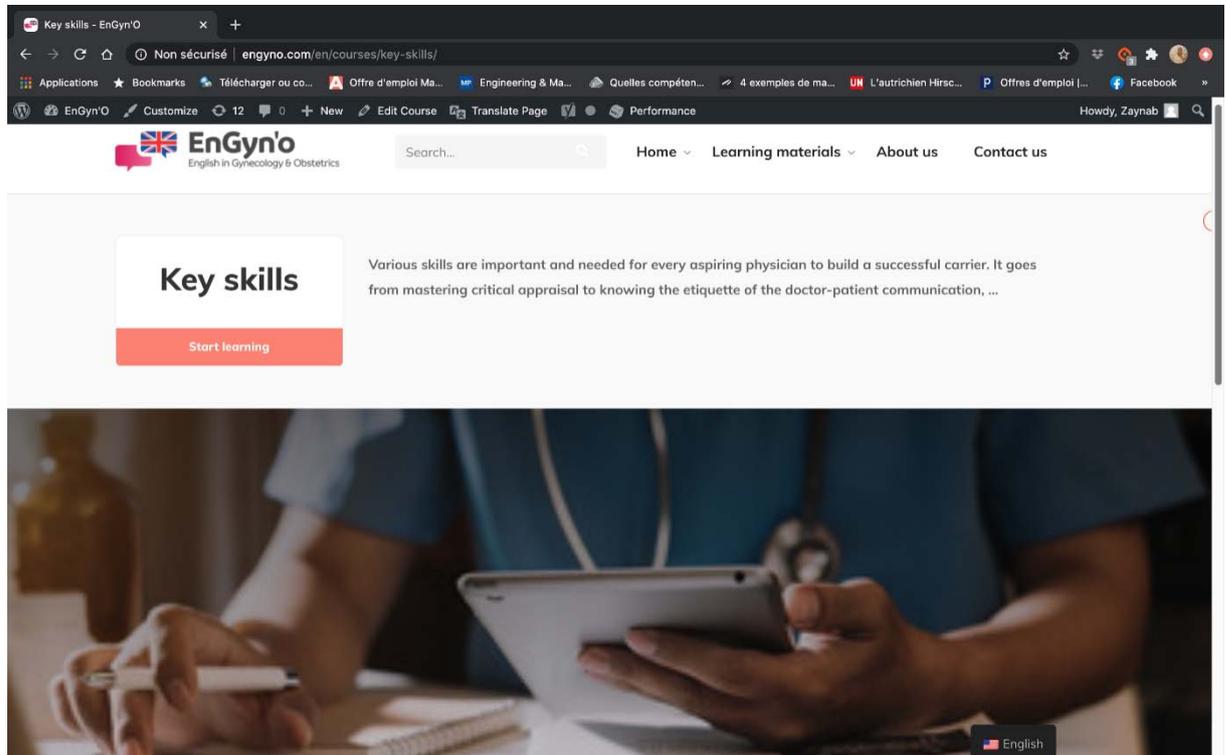


Figure 34 Key skills page (1)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

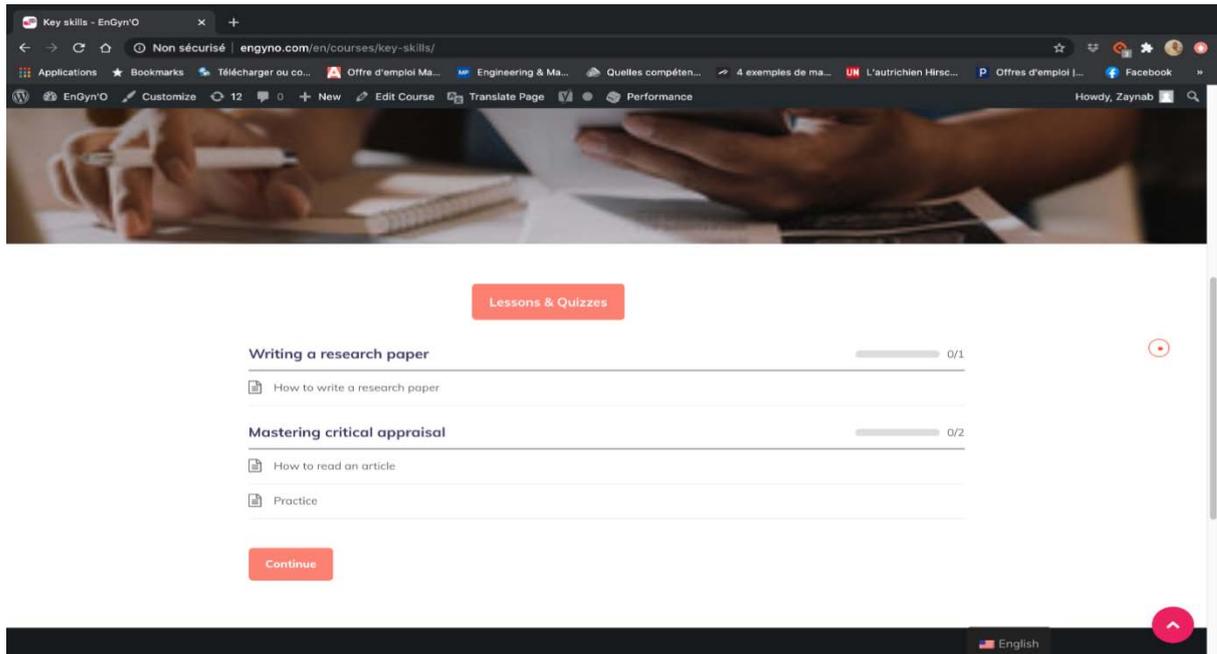


Figure 35 Key skills (2)

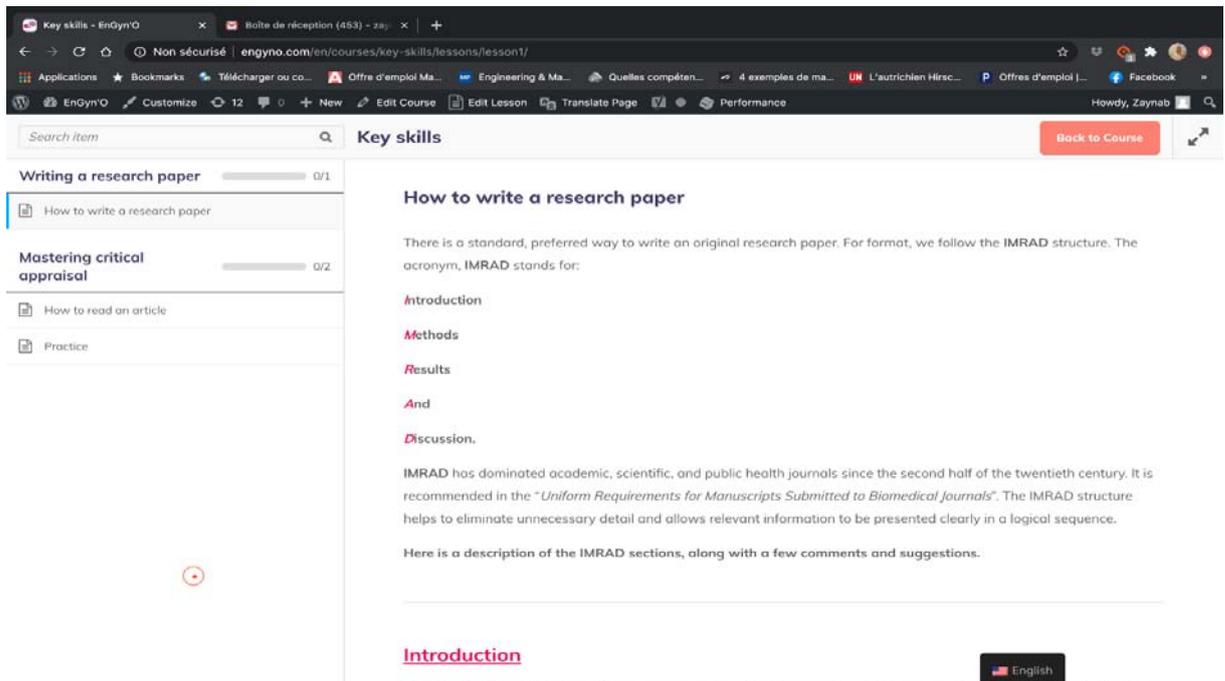


Figure 36 Key skills (3)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

You can access the “Key Skills” section from:

- The header menu that appears on top of every page of the website, through the Learning materials drop-down-menu.
- The Learning materials page.

Figure 34:

- Begin by clicking on “Start learning” in order to enroll in this section.

Figure 35:

- The page displays a list of the lessons available to learn from, with their appropriate exercises and eventual quizzes.
- You can choose whatever item you are interested in by simply clicking its name.

Figure 36:

- This is what a lesson looks like once you’ve clicked it.
- On the left of the page, you have the same list seen on the previous page, from where you can choose another lesson or exercise.

d) Podcast

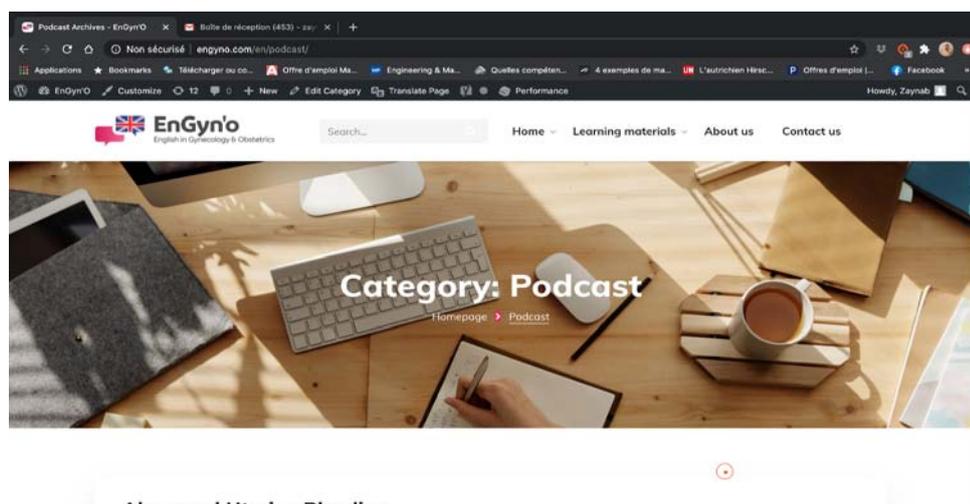


Figure 37 Podcast page (1)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

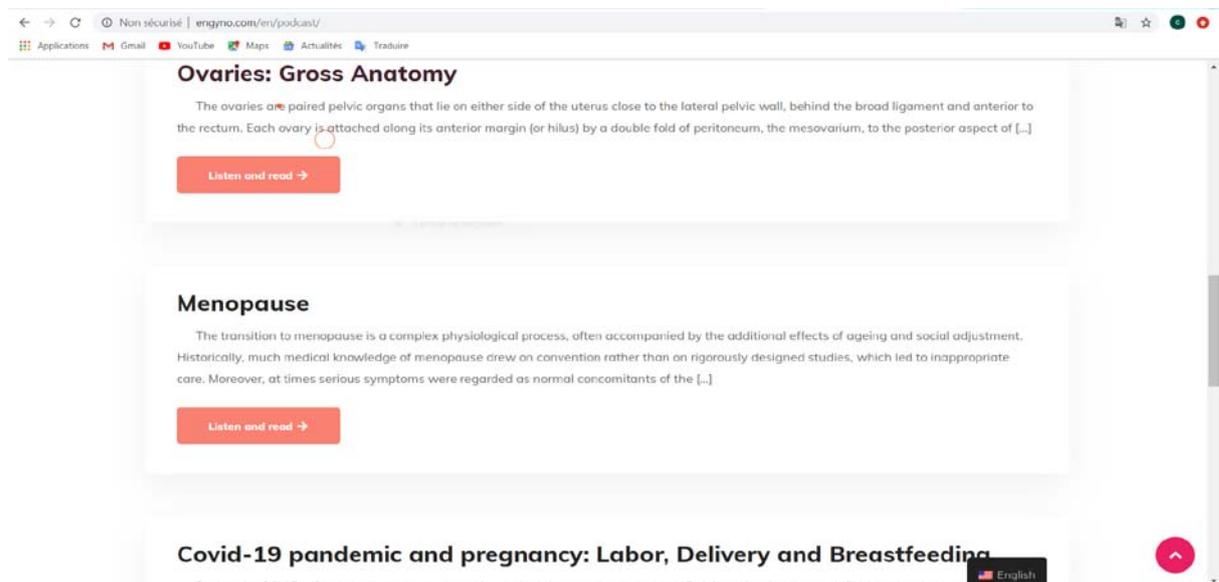


Figure 38Podcast page (2)

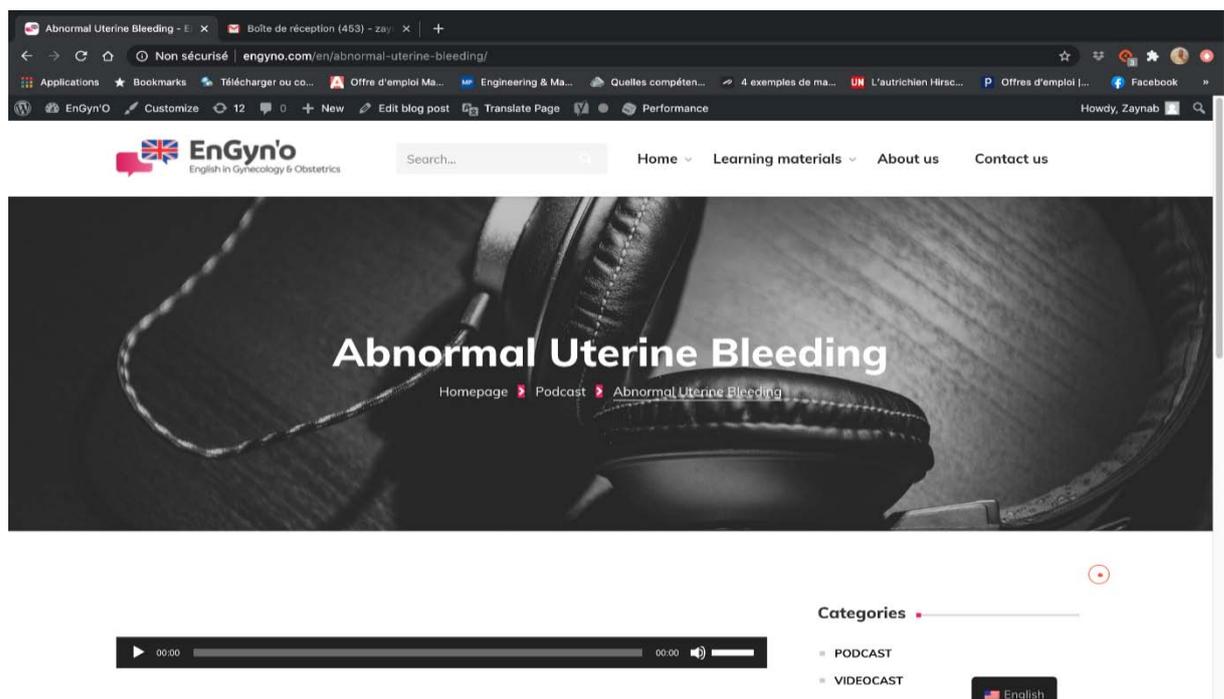


Figure 39Podcast page (3)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

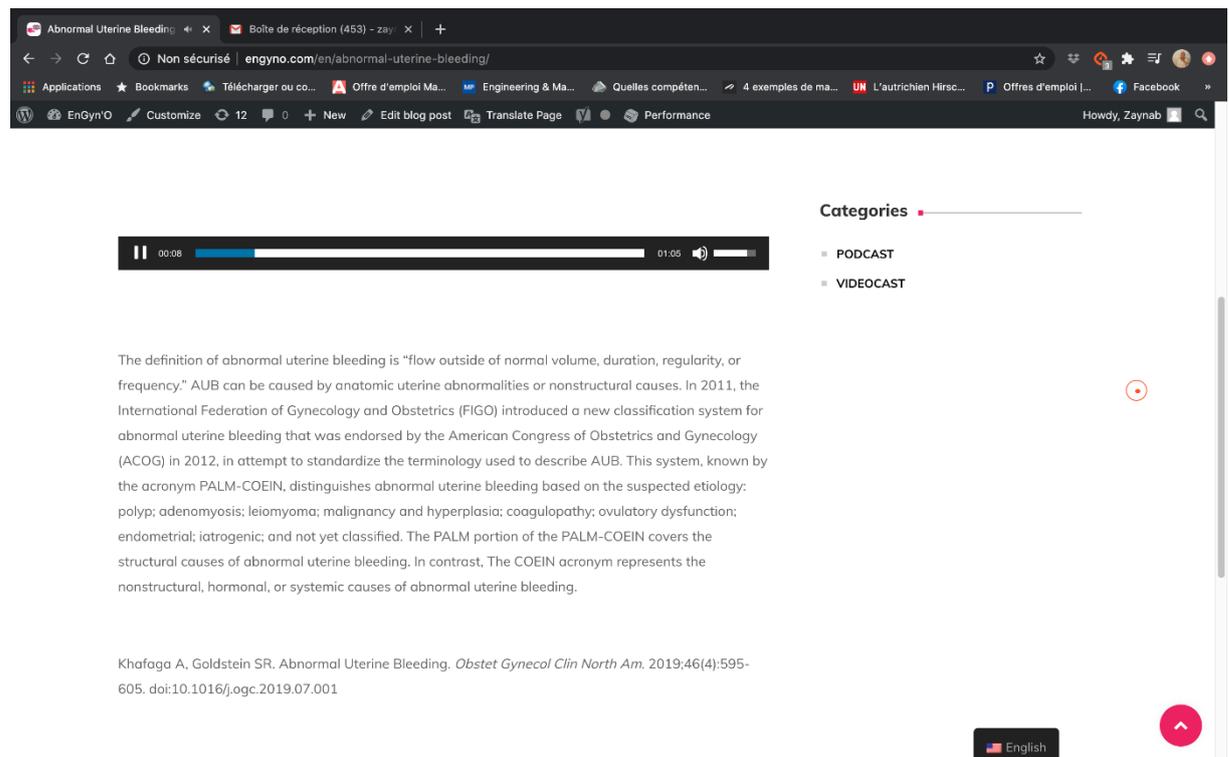


Figure 40 Podcast page (4)

You can access the “Podcast” section from:

- The header menu that appears on top of every page of the website, through the Learning materials drop-down-menu.
- The Learning materials page.
- The Home page.

Figure 38:

- The page displays a list of the voice clips available to listen to, with a sample of their appropriate text.
- Choose any of the voice clips by clicking on the “Listen and read” button.

Figure 39:

- You are redirected to this page once you’ve chosen the podcast you want to listen to.
- The title appears on top.

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

Figure 40:

- You can start listening to the recording by clicking on the “play” button
- Below the voice clip is the text that is being read. You can choose to either listen without reading, listen and read, or go back to the text only when you’ve missed a word.

e) **Videocast:**

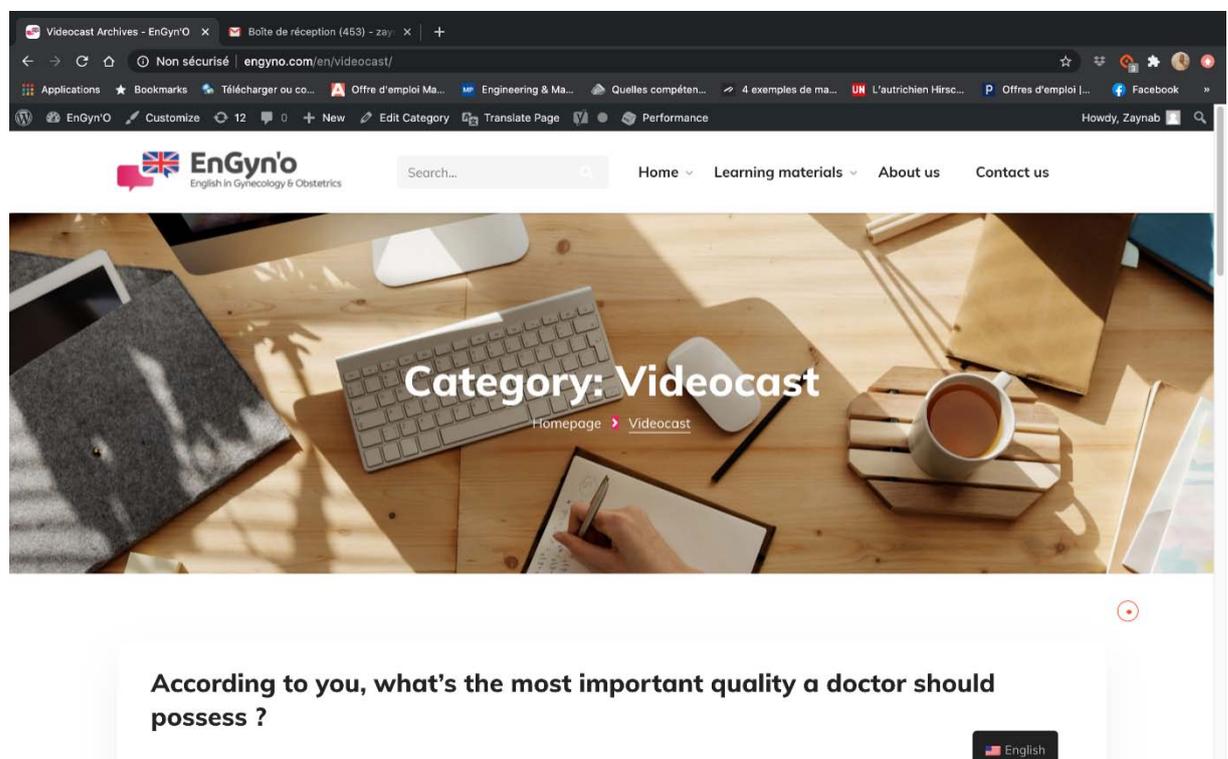


Figure 41 Videocast page (1)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

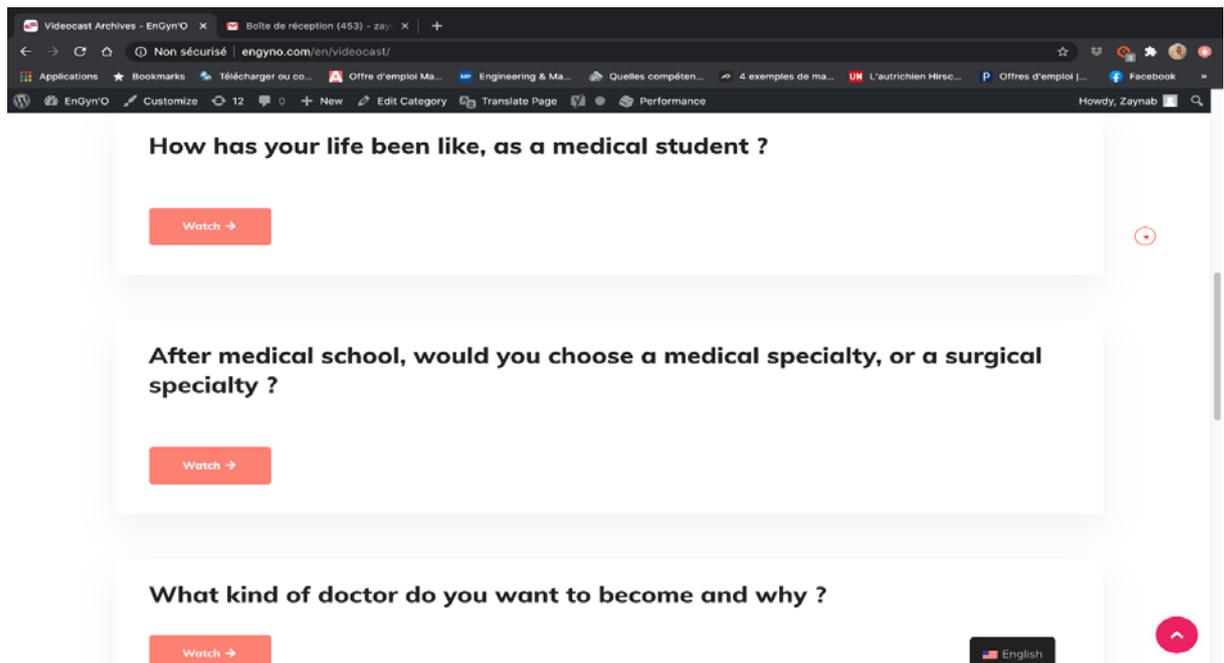


Figure 43Videocast page (2)

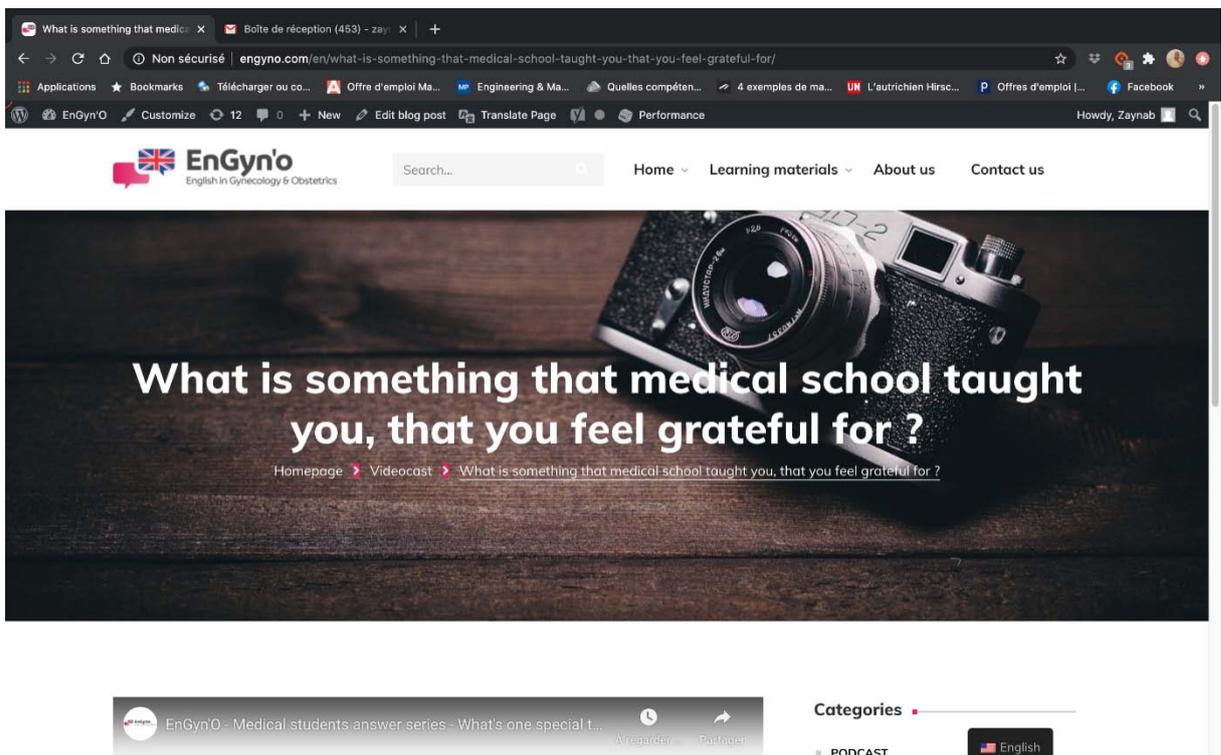


Figure 42Videocast page (3)

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

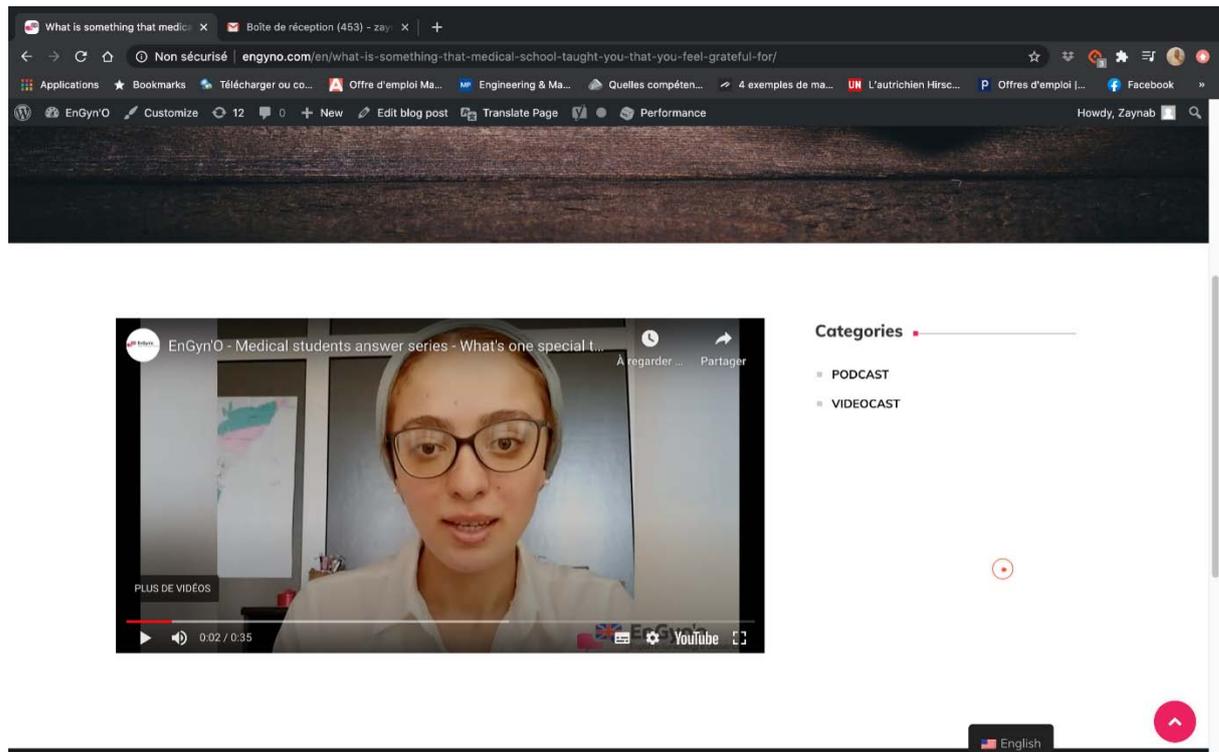


Figure 44 Videocast page (4)

You can access the “Videocast” section from:

- The header menu that appears on top of every page of the website, through the Learning materials drop-down-menu.
- The Learning materials page.
- The Home page.

Figure 42:

- The page displays a list of the videos available to watch.
- Choose any of the voice clips by clicking on the “Watch” button.

Figure 43:

- You are redirected to this page once you’ve chosen the video you want to watch.
- The title appears on top.

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

Figure 44:

- You can start watching the video by clicking on the “play” button.
- Every video starts with a reminder of the question it answers.



DISCUSSION



I. Medical English

1. English for specific purposes :

Few would dispute the need for students of scientific disciplines to learn English. The teaching of English to scientists whose first language is not English is essentially utilitarian. The learners need English as a mean of doing their work efficiently and of furthering their specialist education, and the language is not taught with a general educational aim in mind, as a cultural or social experience. As suggested by its name, English for specific purposes (ESP) covers both the common nucleus—the basic categories and patterns of communication and structure of the English language—and variations relevant to the specific use[7]. The basic principle of teaching languages for specific purposes has been created to meet specific academic and professional needs of learners, whereby each pedagogical situation and each group of learners is considered to be new and different from the previous one. The language courses for specific purposes are based on particular vocabulary set and unique language skills that will be indispensable to learners in a specialized field. There is no single approach for all pedagogical situations; there is no curriculum and set of activities that are applicable in all contexts. Furthermore, the variety of uses to which English is put in different fields and the different degrees of proficiency required make it essential to consider each group of users in each field separately.

The field of activity with which we are concerned is medicine. In this case, we talk about “English for Medical Purposes” (EMP), also called “Medical English”.

2. English for Medical Purposes :

Nowadays English is the lingua franca of communication in the field of medical science. It is used as the primary means of communication in correspondence, at conferences, in the process of writing scientific articles, which leads to globalization and

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

homogenization of science and scientific language. It is characterized by specific linguistic features and requires a special study which can be realized only by using specifically designed programs.

Medical English is a branch of English education with a specific purpose: to ensure that students, specialists, and professionals working in the medical and healthcare sciences meet all the prerequisites of medical/healthcare studies and professions.

a. Medical English VS. Literary English:

Medical English distinguishes from Literary English in its nature and function. According to a study conducted by Ahmad, J. (2020), the contrastive analysis will manifest thematic, lexical and syntactical disparities that exist between the two genres[8]. Medical English is marked with precision, exactness, verifiable research findings and departure from an individual's whims and fancies. For example, a medical scientist needs authentic experiment to validate the accuracy of his medical discovery whereas a litterateur just reveals what he feels regardless of any external verification.

On a more lexical and syntactical level, this study has found that some linguistic features are predominant in Medical English compared to Literary. As an example, we find that the use of passive voice, and the use of nominalization occur more frequently in medical research papers. Also, the use of compound nouns and more specifically the use of Greco-Latin compound words is more noticeable in Medical English, in addition to the use of acronyms and abbreviations, which is also more frequently observed in Medical English. On the contrary, figurative language, which contains metaphors, personification, hyperbole, symbolism, idioms and others, is more encountered in Literary English compared to Medical English, due to the precision that the latter requires, with no such thing as emotive or imaginative ornaments.

These clear disparities explain the need for teaching programs that are specifically tailored for medical learners by Medical English experts to ensure they are aware of such differences. Therefore, it appears that an EMP teacher should have some general knowledge of medicine and rely predominantly on his linguistic knowledge which is then put in the medical context[9].

b. The importance of Medical English:

To explain the importance of English in medicine and the reasons why young doctors need English in their professional development, it is necessary to look beyond the fact that English is the standard language of medicine throughout the world [10]. While it is true that some of the major medical textbooks are available in a variety of languages, English remains the dominant language of medical research. As an example, a study examining the prevalence of the languages used in public health research in Europe found that of 210,433 articles included in that study, only 3.5% were published in a non-English language [11]. It is understood that for doctors, being able to access and read, the most current medical research is critical. Therefore, medical students need to learn how to access and read articles in English in order to become well-rounded physicians.

c. The impact of the English language on medical education:

Numerous studies have investigated the influence of the English language knowledge on students' medical education. The aim of an Austrian study was to assess students' level of English as a Foreign Language (EFL) prior to enrolling in Medical School. The results of the study indicated that students lacked the speaking skill and the authors of the study offered recommendations for improving oral communication skills thus enabling them to successfully communicate in professional setting [12].

In addition, the study carried out in Italian medical schools aimed at the assessment of English language knowledge of medical students. The authors of the study came to the

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

conclusion that the goals of EMP teaching and minimum level of specific skills were not strictly defined. They pointed to the fact that there should be greater collaboration between universities and believed that it would contribute to higher teaching quality, and students' academic performance. Furthermore, they proposed taking mandatory Medical English language exam upon graduation [13].

According to Brown [8] from the United States of America, the ESP curriculum should be based on content leading to students' successful academic performance. It also pointed the fact that traditional methods of language learning were out of context and lack adequate linguistic competence needed in everyday, real-world situations. Thus it was suggested that the content of all academic core courses should be incorporated into the curriculum of a foreign language. As a result, the solid base for acquisition of specialized communicative skills, both professional and academic, could be established [14].

Hull [15] believes that the priority of Medical English teaching should be adequate linguistic competence achieved by involving healthcare professionals in the process of creating the English language curriculum. At the center of the approach he advocates is the content and context based program preparing students for active language use after graduation.

According to O'Dowd [16] from Hamamatzu University, Medical English teaching should not only focus on vocabulary acquisition and text analysis but also on developing communication skills, problem solving, as well as decision making. ESP teachers should recognize the necessity of implementing and developing the so called higher-order thinking skills in their students so that they would be able to satisfy both professional and social requirements.

d. Worldwide trends:

Medical English was first introduced in Morocco in 2015. The decision was made based on an evaluation investigating the level of English in Marrakech medical school students. Great disparities were found among the evaluated students, and therefore, medical English became a mandatory class as a part of the Communication and Language unit during the first semester of medical studies in the Faculty of Medicine and Pharmacy of Marrakech, and in the rest of medical schools of the Kingdom, as a part of a national medical studies reform in 2015.

The unit's syllabus is taught over 10 classes of 2 hours each, and covers a total of 23 objectives, among which: Introducing a person; recognizing the different parts of the body; talking about symptoms; interviewing a patient; giving the case history of a patient; acquiring medical basic terminology...

The classes are taught to small groups of students in a classroom setting, by medical professors from various specialties. At the end of the semester, the students are evaluated during a one hour exam consisting of both multiple choice questions and open-ended questions.

In the context of Tunisian higher education, medical English was neglected for a long time, and when first introduced, it was optional, with no evaluation or examination, which contributed, with other factors, to its devaluation not only by students but also by teachers. Given the importance of this language in the training and professional career of doctors, it has now been strongly inserted into the university medical education curriculum by setting learning objectives classified by level, and by using methods adopting new ICTs (Information and Communication Technologies), thus making it possible to meet the identified learning needs [17].

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

In order to meet international guidelines and standards for medical education, the Faculty of Medicine of Sousse has begun a curriculum revision of recent years. The committee of Medical English has been set up in that sense, and its mandate was to establish reform of medical English teaching program after having drawn up an inventory of its so far adopted teaching methods and tools with an evaluation of their suitability degree. In addition, an identification of training needs in medical English according to the level of medical training is established from the first level of medical studies (PCEM1) to the last level of the second cycle of medical studies (DCEM3), evaluating the development of medical English skills needing to be reinforced.

In Japan, medical institutions have been introducing and developing a variety of medical English programs and activities to enhance the educational experience for everyone involved. While many institutions focus on activities at the undergraduate level, others also focus on activities for young doctors[18]. Tokyo Medical University, a pioneer in medical English education, initiated activities focusing on a variety of oral communications skills. These include doctor-patient encounter, patient education, and oral presentation skills development for faculty and students [19]. Another Japanese medical school recognizing the value of providing robust English support for their faculty and students is the University of Tsukuba. Established in 2010, their Medical English Communications Center provides a host of English support services including presentation slide editing, poster editing, presentation practice, and other related services for researchers preparing for their international conferences and collaborations. Teaching and learning communication skills in English have become an important part of educational programs at institutions all across Japan. The University of Tokyo, Faculty of Medicine holds special sessions approximately 10 times a year where volunteer speakers give scientific oral presentations for students and faculty followed by a discussion period [20]. In addition to the many hours devoted to oral presentation skills training activities for physicians and researchers, many universities also

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

commit a substantial amount of medical English training for undergraduate and graduate students, and have a history of medical English in their respective programs focusing on developing the ability of students to communicate in a clinical setting.

In France, the teaching of English has become compulsory in the faculties of medicine since March 1992, when a new order stated that the teaching of foreign languages must represent the equivalent of at least 120 hours, either in the form of specific classes, or integrated with that of other disciplines. If not provided in the first year of the first cycle, it must be organized in the second year of the first cycle and the first year of the second cycle. The modalities for implementing this teaching is left to the choice of the different universities. Only the objective and the number of hours of instruction have been defined by the order of 1993, which states that the main goal is not to ensure that students know everything, but that they are able to read, analyze and demonstrate synthetic skills, and in short to develop their critical mind. It is in this perspective that knowledge of foreign languages, and in particular of English, is necessary.

The medical faculties of Dijon, Nice and Nantes have very early taught English in medicine. These faculties have the first Inter-University Degree in English for medicine [21]. They are the source of 2 books dedicated specifically to the learning of English in faculty of medicine [22]. Starting from there, other books have been published and many faculties have introduced English into their curriculum in different ways that suit the needs of their students.

Overall, it appears that the universal common aims for this discipline are to learn medical English in order to meet common training objectives, to promote both physicians and patients international mobility, to encourage the certification of competencies in medical English and to encourage the adherence to deepen specialized training in this discipline at national and international levels, all within a general niche of quality of the

medical education and an international approach process of excellence and improvement of healthcare systems.

II. E-Learning

“The effect of electronic learning (e-learning) is likely to be revolutionary, although how precisely it will revamp professional education remains unknown.”

This statement is part of a vision and strategy by Frenk et al (2010) for a commission on education and health workers for the 21st century[23].

1. Definition :

According to Ellaway& Masters [24], E-learning encompasses a pedagogical approach that typically aspires to be flexible, engaging and learner-centered; one that encourages interaction, collaboration and communication, often asynchronously (though not exclusively so), the common denominator being the use of technology and electronic devices to enhance learning. It may also be defined as an approach to teaching and learning, representing all or part of the educational model applied, that is based on the use of electronic media and devices as tools for improving access to training, communication and interaction, and that facilitates the adoption of new ways of understanding and developing learning [25]. Web-based learning, Online learning, Distributed learning, Computer-assisted instruction, or Internet-based learning are also used synonymously and interchangeably for this type of learning [26].

2. Characteristics of e-learning :

The three primary characteristics of e-learning are the nature of the learning experience, synchronicity of participation, and presence or absence of face-to-face instruction [24].

Depending upon the nature, the learning experience is termed “didactic” when the learning material is literally handed over to the student and they cannot change it, and ‘active’ when the student has control over the learning process. In the “active” type, the learning content evolves as the course progresses and co-learners interact; the instructors act as facilitators and help in the evolution of learning.

The learning is termed “synchronous” when the instructions are provided on the spot, as in face-to-face teaching, and “asynchronous” when there may be a time gap between the instructions provided and response of the learners. In synchronous learning, participants interact with instructor in real time. There is interaction between the participants using the available audio-visual aids like chat, virtual classrooms, and audio- and video-conferencing.

E-learning is divided into “complete” or “full learning”, and “blended” or “mixed-learning”, depending upon the use of the method as either replacement or augmentation of the face-to-face learning. There is no physical contact of any sort in complete e-learning, whereas some contact remains in the blended type of learning. In the blended type, both the methods are used at some point of time during the whole course [27].

3. The rationale for e-learning :

a. Advantages of e-learning:

Flexibility and ease of access: E-learning is not fixed or time bound to a particular schedule and is very easily accessible, so learners can choose a place and time of their own liking. Teachers can also update and edit the learning material at their own convenience. The accessibility of the content via small size of the gadgets, mostly hand-held, also complements this feature.

Cosmopolitan nature: E-learning is sans frontiers, and this has been found to be useful in remote and rural areas as well [28]. The participants may actually belong to any part of the globe.

Time-saving: More number of students can be taken up at same time, thereby reducing the time needed for total lectures. The content once made is eternal, and can be revisited any number of times. The saved time in preparing lectures can be used by the teachers to hone their higher level of cognitive e-learning [29].

Adult learning principles: E-learning helps in deeper learning, increases self-motivation, and fulfils the adult learning principles [26]. It also allows the participants to set their own pace as per their learning styles and can be used as best suited tool for personalized and interactive e-learning experience. It is tailored to student's needs and is learner-centered, thus helping in self-directed learning [25].

Uniformity: Since identical information is posted to all the participants, the curricula uniformity is maintained across the learners. This helps in the uniform attainment of learning objectives because of equal availability of quality and quantity of information dispersed.

b. Challenges of e-learning:

Connectivity:The success of e-learning often depends upon the internet connectivity [27]. Adequate bandwidth would be needed at various levels to ensure proper downloading – lower speed or interruptions lead to sub-optimal use of this modality. Some students do not have permanent access to internet, others do not own computers. Nonetheless, the widespread of smartphones will allow to get around this issue, as well as the availability of wireless internet and a computer room within the school.

Technical support: Even if the infrastructure is present, the technical support to run the system, awareness about the support materials, quick solutions to the technical glitches is lacking [30]. Many studies have concluded that awareness about computer technology and competency as well as proficiency in usage of computers at learners' level is 'a must' to adopt this technology [31].

Lack of face-to-face interaction: The bulk of the early teaching is with traditional face-to-face interaction; its non-availability in e-learning is a well-recognized challenge [32]. The lack of tutor support, especially in understanding the complex and 'difficult-to-understand' topics, have also been cited as a disadvantage of e-learning [33].

Psychological issues: There is resistance to need of change in both the teachers and students alike, especially when there are no guidelines [27]. The need of information or guidance for grasping the concepts of this seemingly difficult topic makes learners even more skeptical [34]. Prevailing myths about the e-learning may also discourage the learners.

4. E-learning and medical education:

The integration of e-learning in medical education becomes increasingly urgent over time, and is being gradually adopted worldwide.

The medical Council of India (MCI), the regulatory body of medical education in India, has recognized the importance of the technology and has included the use of electronic means in the broad competency "Lifelong learner committed to continuous improvement of skills and knowledge [27]." An Indian medical graduate must have obtained this competency at the time of graduation. The student has to continuously acquire new skills and keep themselves abreast of latest development, a goal presently considered difficult to attain in the absence of technology. The use of e-learning can help them achieve the goal of continuous

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

professional development, considering the vastness of syllabus, paucity of time, and already overburdened schedules [35].

Recognizing the importance of information technology for the doctor of today, the General Medical Council in UK also advocates that medical graduates should be able to “make effective use of computers and other information systems, including storing and retrieving information”

In Japan, globalization has brought an increase of non-Japanese residents to the country; it has since been urgent for nurses to improve conversational skills [36]. For that, an e-learning system has been developed for nurses to learn medical English and Chinese conversation. The teaching materials were designed as a video including conversations with various scenarios taking place in a hospital, in English and in Chinese, between a patient and a nurse. Subtitles are shown and read out twice in English and Chinese and once in Japanese. The English conversation items include 35 titles that include scenes such as patient interviews, appointments for examination, clinic visits, orientation for admission, and operations. In the conversation contents, textual data on the screen and voices reading a script aloud were synchronized. Foreign languages were repeatedly read aloud so that a learner can practice pronunciation sufficiently. Moreover, the conversation scenes comprise short sentences, which make it easy for learners to remember them and thereby develop their skills to read textual data and listen to voice data. The items include scenes that are often seen in a hospital, along with contents that are easy to use in nursing practice [36].

In Korea, a study was conducted to describe how mobile technology is integrated into a medical English course to make it more interactive and engaging, and also to investigate student experiences of using mobile technology and its impact on student learning by evaluating the learning outcomes [37].

The study showed positive learning outcomes in terms of the improvement in students' self-efficacy in medical English. Still, students' self-efficacy in English increased in reading and writing and did not show significant improvement in the listening and speaking domains. It can be speculated this was due, in part, to the course objectives that did not focus on listening and speaking skills. Moreover, student learning improved compared to that of the previous year when mobile technology was not used in terms of the ratio of students who did not perform successfully in the mid-term assessment and therefore needed to be remediated. It is speculated that students' active classroom engagement and in particular frequent feedback through formative assessment using the mobile classroom application was helpful for enhancing student learning especially for low-performing students [37].

5. E-learning during the COVID-19 pandemic:

Because of the COVID-19 outbreak that has taken over the world, schools have been shut down for weeks, even months on end. And as the pandemic shows no sign of lessening any time soon, nobody knows when schools will be able to open again. In many countries worldwide, students are called to stay at home as teaching is undertaken remotely. Again, very important sectors are forced to embrace remote working to keep the pace steady.

In Morocco and as far as education is concerned, an alternative way of learning is being adopted. Thus, the Moroccan ministry of education encouraged schools to use an online platform called Microsoft Teams and launched a daily program of lessons broadcasted on TV for students to study at home. Teachers as well have made great efforts to launch an e-learning class for their students to follow their teachers' lessons and assignments at home. Some of them are conducting online classes through a video web conferencing app called, Zoom while others are delivering lessons through other possible available means such as various social media... Using different digital software and online

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

platforms enables college students to complete assignments, deliver presentations, and take quizzes. Even thesis defenses are carried out online.

However, teachers as well as students have concerns surrounding internet access and any weaknesses that the system may have compared to face-to-face learning. Indeed, Morocco has embarked on a tech educational model since schools have been closed to maintain education continuity and at the same time keep students busy learning at home until it feels safe for schools to operate.

Before the outbreak of COVID-19, Morocco had already launched several programs aiming at digitizing the educational system though those programs are not pervasive across the country and they are carried out at a slower pace. To initiate such an approach in teaching, the ministry of education has launched several training courses within GENIE program “Generalization of Information and Communication Technologies in Education” through which teachers are acquainted with manipulating Microsoft Office software and interactive boards and enhance their skills in the digital domain. With the aim of allowing students to master digital tools, many schools have been equipped with digital materials.

With this sudden shift away from the classroom in many parts of the globe including Morocco, some people are wondering whether the adoption of distant learning will continue to persist post-pandemic, and how such a move would impact the education sector in Morocco. It's too early to identify any particular impact as sufficient data is not available across the country. However, we have witnessed a great interest in engagement in using ICT for online teaching and learning. Thereby, we speculate that the education policy will be considered entirely in the light of the challenges faced amid this pandemic. There should be an urgent call for full implementation of a technology-based model across all institutions as well as across all subjects. Yet, the teacher should be at the heart of those considerations because no gadget can replace a human touch in education. The latter is much more than

offering knowledge. Despite the ongoing success, there are certain aspects that simply can't be replaced by distance learning. It is for this reason that face-to-face instruction is highly substantial in the building of the students' character. Yet, ICT should be implemented in the classroom to boost students' critical thinking skills and prepare them for the real modernized world. With that, a hybrid model should be established on solid grounds in order to maintain and sustain a tech approach that is feasible in the real classroom.

Overall, e-learning has appeared to be a significant advance with the potential to change the face of medical education worldwide in the coming years. For this to happen, institutions and teachers need to be prepared to accept the change, and put-in the required resources — whether manpower, time or money. For successful incorporation of e-learning in the existing set-up, the following attributes are essential: Motivation and self-discipline, ability to study independently or schedule study time, understanding the e-learning process and adequate equipment and dedicated work space/support. That being said, it remains up to the medical educators and administrators to incorporate these modalities, and to researchers to test them, in order to make the best out of this revolutionary education method.

III. Future outlooks

For the sake of improving Medical English teaching and learning in our country, we suggest to consider the following proposals as measures to implement within our education system as soon as possible:

- Motivate other medical and surgical specialties into becoming a part of our platform by adding new content specifically related to their field of exercise. This would allow the platform users to develop their communication skills through extending their

medical terminology knowledge, by including always more vocabulary. In fact, it has been shown that the lack of English medical terminology can hamper students as they acquire and update their professional medical knowledge and develop professional communication skills[38].

- Officially integrate this method of learning in the pedagogical arsenal of our school for the many advantages it offers. Not only will it provide a complement to the classical teaching method, but it will also replace some classes, and thus, will allow the school and the students to save valuable time and resources. Additionally, the interactive nature and flexibility of the platform enables the students to learn at their own pace, depending on their linguistic and learning abilities which often vary widely, and are a reason for difficulties that the language learner encounters in a classical learning setting, whereas an online class can't be too slow nor too fast for the learner.
- Let medical students actively participate in the making of the platform by asking them to share their ideas and suggestions about what they see could be improved or added to the learning materials already offered. This is important as, nowadays, the traditional authoritative teaching styles are a thing of the past, and more attention is paid to interactive methods. As a result, discussing, consulting and reacting critically have become an indispensable part of student- teacher encounters. Teachers are no longer seen as the fountain of knowledge, they have to learn to listen to students and be willing to respond to their subjective learning needs[9]. Moreover, teachers could ask their students to become a significant part in building the platform's content, especially through the Videocast learning section. As a homework, students could film videos where they answer various questions, or simulate different situations such as doctor-patient interviews or physical examination, among others.

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

- Encourage national coordination between all faculties of medicine, in order for our platform to become the standard tool when it comes to teaching medical English in the curriculum of academic training of doctors. This particular measure will give this discipline a uniform and homogenous aspect, with common knowledge to fulfill, and shared objectives to achieve.

Overall, the adoption of this model of teaching will be of great benefit to the medical educational system. The integration however must come gradually and experimentally before a full implementation.



CONCLUSION



Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

It is well established that English has become, for many years now, the main language of science (on top of many other fields). Therefore, being able to communicate effectively in English, understand and be understood, has grown into a necessity in the process of building a successful carrier.

Medical English, a branch of English for Specific Purposes, involves the learning of English for a utilitarian purpose. It is designed to meet the specific English language needs of the medical learner, and therefore focuses on themes and topics specific to the medical field, in addition to a restricted range of skills which may be required by the medical learner.

Nowadays, technology has completely changed the way education is delivered. E-learning has been rapidly adopted due to the wide-spread access and the many benefits it offers, allowing individuals to develop their professional skills in almost every field, among which, the medical field.

Combining the will to help medical learners acquire the needed medical English knowledge with the urge for a useful yet very simple digital tool that allows self-education, self-assessment and teaching, we came up with EnGyn'O.

EnGyn'O is the first e-learning platform of its kind in the MENA region, and the first medical English e-learning platform in the world with a focus on Obstetrics & Gynecology. It consists of a website and a mobile application that both provide the learner with the necessary resources to work on and strengthen all areas of communication.

And with the launch version focusing on Obstetrics & Gynecology, we hope that we will soon witness other specialties joining the platform with even more valuable and enlightening content, to the benefit of every medical student who wishes to level up their medical English.



ABSTRACTS



Abstract

With the number of English language scientific papers profusely increasing over the years, English has gradually become today's lingua franca of medical international communication, the same as Latin was in the past. Therefore, it is an essential prerequisite that needs to be taken care of by every medical learner who yearns for a successful career.

Our work was motivated by the need for a teaching material that would provide a variety of learning resources specifically tailored for not only medical students but also every healthcare professional that wishes to step up their medical English to a higher level.

And with e-learning, nowadays, taking over traditional forms of learning, we chose for our work to come in a digital format for the endless benefits and the myriad of possibilities that technology-enhanced learning ensures.

This is how we created EnGyn'O, a digital platform that reunites a website and a mobile application, both dedicated to learning medical English. Our platform is designed for teaching, self-education and self-assessment through a plethora of resources that helps improve all areas of communication.

Our platform includes the following learning sections: Grammar, Vocabulary, Key Skills, Podcast and Videocast. These different sections with their content, combined together, enables the medical learner to work on all language skills (reading, listening, writing and speaking) in a targeted way and always within the medical field.

The launch version of our platform focuses on Obstetrics and Gynecology as its main theme, with the aim to extend this concept to other medical and surgical specialties in the near future.

Résumé

Avec l'augmentation considérable du nombre d'articles scientifiques en langue anglaise au fil des ans, l'anglais est progressivement devenu la « lingua franca » de la communication médicale internationale, tout comme le latin l'a été auparavant. Par conséquent, sa maîtrise est une condition préalable essentielle devant être considérée par tout apprenant en médecine qui aspire à une carrière réussie.

Notre travail a été motivé par le besoin d'un matériel pédagogique qui fournirait une variété de ressources d'apprentissage spécifiquement adaptées non seulement aux étudiants en médecine, mais également à tous les professionnels de la santé qui souhaitent amener leur anglais médical à un niveau supérieur.

Et avec l'apprentissage en ligne qui de nos jours, a pris le pas sur les formes traditionnelles d'apprentissage, nous avons choisi que notre travail soit dans un format digital pour les avantages infinis et la myriade de possibilités que l'apprentissage médié par la technologie apporte.

C'est ainsi que nous avons créé EnGyn'O, une plateforme digitale qui réunit un site Web et une application mobile, tous deux dédiés à l'apprentissage de l'anglais médical. Notre plateforme est conçue pour l'enseignement, l'auto-éducation et l'auto-évaluation à travers une pléthore de ressources qui aident à l'améliorer tous les axes de la communication.

Notre plateforme comprend les sections d'apprentissage suivantes: Grammaire, Vocabulaire, Compétences clés, Podcast et Vidéocast. Ces différentes sections et leur contenus, combinés ensemble, permet à l'apprenant en médecine de travailler sur toutes les compétences linguistiques (lire, écouter, écrire et parler) de manière ciblée et toujours dans le domaine médical.

Medical English in Obstetrics and Gynecology: An interactive learning material for medical students, designed in the Medical School of Marrakesh, Cadi Ayyad University.

La version de lancement de notre plateforme se concentre sur l'Obstétrique et la Gynécologie comme thème principal, dans l'optique d'étendre ce concept à d'autres spécialités médicales et chirurgicales à l'avenir.

ملخص

مع تزايد عدد الأعمال العلمية باللغة الإنجليزية بشكل كبير على مر السنين ، أصبحت اللغة الإنجليزية تدريجياً اللغة المشتركة للتواصل الطبي الدولي ، كما كانت اللاتينية في الماضي. لذلك ، فالتمكن من هذه اللغة هو شرط أساسي يجب أن يتوفر في كل متعلم ينتمي لميدان الطب يتوق إلى حياة مهنية ناجحة.

كان الدافع وراء عملنا هو الحاجة إلى مواد تعليمية توفر مجموعة متنوعة من الموارد المصممة خصيصاً ليس فقط لطلاب الطب ولكن أيضاً لكل متخصص في الرعاية الصحية يرغب في رفع لغته الإنجليزية الطبية إلى مستوى أعلى.

وبما أن التعلم الإلكتروني في الوقت الحاضر، أصبح ينافس الأشكال التقليدية للتعلم ، اخترنا أن يأتي عملنا في شكل رقمي نظراً لفوائده المتناهية والكم الهائل من الاحتمالات التي يضمنها التعلم المعزز بالتكنولوجيا.

هكذا تم إنشاء EnGyn'O، وهي منصة رقمية تضم موقعاً إلكترونياً وتطبيقاً للهاتف المحمول ، وكلاهما مخصص لتعلم اللغة الإنجليزية الطبية. تم تصميم منصتنا للتدريس والتعليم الذاتي والتقييم الذاتي من خلال عدد كبير من الموارد التي تساعد على تحسين جميع مجالات التواصل.

تتضمن منصتنا أقسام التعلم التالية: القواعد ، والمفردات ، والمهارات الأساسية ، والبودكاست ، و بث الفيديو. يمكن محتوى هذه الأقسام مجتمعةً متعلم الطب من العمل على جميع المهارات اللغوية (القراءة والاستماع والكتابة والتحدث) بطريقة مستهدفة ودائماً في المجال الطبي.

تركز نسخة الإطلاق من منصتنا على طب التوليد وأمراض النساء كموضوعها الرئيسي ، بهدف توسيع هذا المفهوم ليشمل التخصصات الطبية والجراحية الأخرى عما قريب.



BIBLIOGRAPHIE



1. **Breene K.**
Which countries are best at English as a second language?. World Economic Forum. 2016. Available on: (<https://www.weforum.org/agenda/2016/11/which-countries-are-best-at-english-as-a-second-language-4d24c8c8-6cf6-4067-a753-4c82b4bc865b>) (accessed on september14.2020).
2. **Maher, J.**
English for Medical Purposes. Language Teaching 1986; 9(2):112–145.
3. **Eastwood J.**
The Oxford Guide to English Grammar. Oxford: Oxford University Press; Phase 4: 2002:157
4. **Harthorn B, Hoepner L, Jeffery B, Steynberg M, Linnegar J.**
Oxford English Grammar: The Advanced Guide Answer Book. Oxford: Oxford University Press: 2015:142
5. **Mandelbrojt–Sweeney M, Sweeney E.**
Anglais medical. Paris: Elsevier Masson. 4ème edition: 2013; 11:202.
6. **Ribes R, Ros PR.**
Medical English. Berlin : Springer–Verlag. Edition 1: 2006:133
7. **Kourilova M.**
Teaching English for specific purposes. Br Med J. 1979;2(6187):431–433.
8. **AHMAD, J.**
Medical English Vs. Literary English: A Contrastive Analysis. Advances in Social Sciences Research J. 2020;6(7):860–73.
9. **Antić Z.**
Benefits of Student–Centered Tandem Teaching in Medical English. SrpArhCelokLek. 2015;143(7–8):500–504.
10. **Salager–Meyer F.**
Origin and development of English for medical purposes. Part I: research on written medical discourse. Med Writ. 2014;1(23):49–51.
11. **Clarke A, Gatineau M, Grimaud O, et al.**
A bibliometric overview of public health research in Europe. Eur J Public Health. 2007;17Suppl 1:43–49.
12. **Hayes SC, Farnill D.**
Medical training and English language proficiency. Med Educ. 1993;27(1):6–14
13. **Albano MG, Candace–Pragnell MV, MacGarry SM.**
English teaching in the Italian medical faculties: results of a survey. Ann ItalChir. 1998;69(3):413–416.

14. Brown CL.

Content Based ESL Curriculum and Academic Language Proficiency. *The Internet TESL J.* 2004;2(10):46–48. 15.

15. Hull M.

Whose needs are we serving? How is the design of Curriculum for English for Medical Purposes Decided? Using English available on (<https://www.usingenglish.com/articles/whose-needs-are-we-serving.html>) (accessed on September 18, 2020).

16. O'Dowd.

Developing higher-order thinking skills in medical students. *Reports of Liberal Arts, Hamamatsu University School of Medicine.* 2007;21:21–33.

17. Mahjoub M, Hochlef M, Ghannouchi N, Bouriga R, Amara A, Njah M.

Learning of medical English and academic curricular reform in medicine. *Tunis Med.* 2019;97(7):853–858

18. Jago EH, Amengual O.

Current trends in medical English education and the Japan College of Rheumatology International School. *ModRheumatol.* 2017;27(6):1101–1105.

19. Williams J, Kojima T.

Extracurricular EMP activities at Tokyo Medical University. *J Med Eng Educ.* 2015;14(3):79–82

20. Holmes C.

Extracurricular activities at the University of Tokyo Faculty of Medicine. *J Med English Educ.* 2015;14(5):103–105.

21. Carnet D.

Une idée novatrice en formation médicale continue : le D.I.V.A.M. (Diplôme Inter Universitaire d'Anglais pour la Médecine). *Besoin superflu ou nécessité impérieuse? La Presse Médicale, Elsevier Masson,* 1999;28(27):1474–1477.

22. Rannou F, Charpy JP, Carnet D, Poiraudreau S, Hamonet MA.

Pratique de l'enseignement de l'anglais dans les facultés de médecine en France métropolitaine [Medical English in medicalschool: the French experience]. *Presse Med.* 2007;36(5 Pt1):794–798.

23. Frenk J, Chen L, Bhutta ZA, et al.

Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *Lancet.* 2010;376(9756):1923–1958.

24. Ellaway R, Masters K. AMEE

Guide 32: e-Learning in medical education Part 1: Learning, teaching and assessment. *Med Teach.* 2008;30(5):455–473.

25. Al-Shorbaji N, Atun R, Car J, Majeed A, Wheeler E.

eLearning for undergraduate health professional education: a systematic review informing a radical transformation of health workforce development. *World Health Organization, Geneva.*

2015. Available on (<http://www.who.int/hrh/documents/14126-eLearningReport.pdf>) (accessed on 19/09/2020)

26. Ruiz JG, Mintzer MJ, Leipzig RM.

The impact of E-learning in medical education. *Acad Med.* 2006;81(3):207-212.

27. Dhir SK, Verma D, Batta M, Mishra D.

E-Learning in Medical Education in India. *Indian Pediatr.* 2017;54(10):871-877.

28. Bhatia RP.

Features and Effectiveness of E-learning Tools, *Global Journal of Business Management and Information Technology.* 2011; 1(1):1-7.

29. Toumas M, Basheti IA, Bosnic-Anticevich SZ.

Comparison of small-group training with self-directed internet-based training in inhaler techniques. *Am J Pharm Educ.* 2009;73(5):85.

30. Pande, J. & Hart, L. A.

An online course in health policy: Pearls and perils of cyberspace teaching. *Distance Education Report.* 1998;2:4-5.

31. Klamma R, Chatti MA, Duval E, Hummel H, Hvannberg EH, Kravcik M.

Social software for life-long learning. *Journal of Educational Technology and Society.* 2007;10(3):72-83.

32. Qureshi IA, Ilyas K, Yasmin R, Whitty M.

Challenges of implementing e-learning in a Pakistani university. *KnowlManag E-Learn Int J.* 2012;4(3): 310-324.

33. Gerdprasert S, Pruksacheva T, Panijpan B, Ruenwongsa P.

An interactive web-based learning unit to facilitate and improve intrapartum nursing care of nursing students. *Nurse Educ Today.* 2011;31(5):531-535.

34. Harden RM.

Myths and e-learning. *Med Teach.* 2002;24(5):469-472.

35. Choules AP.

The use of elearning in medical education: a review of the current situation. *Postgrad Med J.* 2007;83(978):212-216.

36. Nakamura Y, Majima Y, Fukayama K.

Development of e-Learning System for Nurses to Learn Medical English and Chinese Conversation. *Stud Health Technol Inform.* 2018;250:69.

37. Kim KJ.

Enhancing students' active learning and self-efficacy using mobile technology in medical English classes. *Korean J Med Educ.* 2019;31(1):51-60. 1.

38. Wang YH, Kao PF, Liao HC.

The Relationship of Vocabulary Learning Strategies and Self-Efficacy with Medical English and Terminology. *Percept Mot Skills.* 2016;122(1):47-66

قسم الطبيب

أقسم بالله العظيم

أن أراقب الله في مهنتي.

وأن أصون حياة الإنسان في كافة أطوارها في كل الظروف
والأحوال باذلاً وسعي في استنقاذها من الهلاك والمرض
والألم والقلق.

وأن أحفظ للناس كرامتهم، وأستر عورتهم، وأكتم سرهم.
وأن أكون على الدوام من وسائل رحمة الله، باذلاً رعايتي الطبية للقريب والبعيد،
للصالح والطالح، والصديق والعدو.

وأن أثابر على طلب العلم، أسخره لنفع الإنسان .. لا لأذاه.
وأن أوقر من علمني، وأعلم من يصغرنني، وأكون أخاً لكل زميل في المهنة الطبية
متعاونين على البر والتقوى.

وأن تكون حياتي مصداق إيماني في سري وعلانيتي، نقيّة مما يشينها تجاه
الله ورسوله والمؤمنين.

والله على ما أقول شهيدا

سنة 2020 أطروحة رقم 194
اللغة الانجليزية الطبية في طب النساء و التوليد:
مورد تعليمي تفاعلي لفائدة طلاب الطب، مصمم بكلية الطب بمراكش ،
جامعة القاضي عياض.

الأطروحة

قدمت ونوقشت علانية يوم 2020/10/15

من طرف

الانسة: زينب الزبيري

المزداة في 14 ماي 1994 بمراكش

لنيل شهادة الدكتوراه في الطب

الكلمات الأساسية:

أمراض النساء و الحوامل- اللغة الانجليزية الطبية – التعلم الالكتروني-موقع الكتروني- تطبيق هاتفي

اللجنة

الرئيس	م. بوسكراوي	السيد
المشرف	أستاذ في طب الأطفال ك. هارو	السيد
الحكام	أستاذ في طب النساء و التوليد ن. ادريسي سليطين	السيدة
	أستاذة في طب الأطفال م. ا. العمراني	السيد
	أستاذ في الجراحة التجميلية و التقويمية أ.غ. الأديب	السيد
	أستاذ في الانعاش و التخدير	