

# Mind Your Language: Factors Enhancing Students' English Language Skills in an International Medical Programme (IMP)

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## Research Article

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# Abstract

## Background

Language proficiency is crucial for doctors as they communicate with patients, peers and other healthcare professionals. Although proficiency in English is part of admission requirements, there is a gap of knowledge on medical students' perception of factors enhancing English language (EL) skills during training in international medical programmes (IMP). The gap prevents educators and policy makers from helping students who struggle with communication skills during medical training. This study therefore explores factors that enable enhancement of English language skills from medical students' perspectives

## Methods

Six focus group interviews with 24 medical students of an IMP were conducted. Data were analysed using Braun and Clarke's framework of thematic analysis.

## Results

Results established three main factors enhancing EL skills namely use of EL in medical training and practice, influence of university culture in EL mastery and individual EL proficiency with eight themes demonstrating the factors as perceived by medical students

## Conclusions

Findings of this study informs how students perceived enhancement of EL skills as a professional and social requirement during medical training and for future practice. It also informs that setting English language admission pre requisites needs to be complemented with opportunities to practice context specific communication skills. Thus, international medical programmes should embed diverse and inclusive strategies to support and develop medical students' English language skills.

## Background

### English Language and Medical Education

The importance of English language (EL) skills in medical education is demonstrated when students from multilingual backgrounds enrol into international medical programmes (IMPs) [1]. The past three decades saw an increasing number of universities with global perspectives of health professions education offering IMPs [2]. With IMPs, the curriculum, teaching, learning and assessment activities are conducted in English [3]. EL serves as prerequisite for enrolment into IMPs which include assessments

such as International English Language Testing System (IELTS) or its equivalent in Test of English as a Foreign Language (TOEFL). Originally, EL assessments were meant to assess the language ability of candidates who need to study or work where English is used as the language of communication. Nonetheless, higher education institutions in Anglophone countries seem to have broadened the use of these assessments to gauge students' academic performance [4].

Maher (1987) reiterated that English is an international language of medicine and expanding as an international communication and education in medicine [5 p284]. Literatures emphasise the importance of communication skills among medical practitioners, as "effective doctor-patient communication is a crucial aspect of quality patient care" [6] but is scarce on the perception of medical students towards factors enhancing English language and communication skills, especially in multilingual environments and IMPs [7]. According to Chia et al. (2001), studies on medical students' English language needs in Taiwan higher education institutions were mostly concerning English Language Teaching [8]. The study highlighted that although students value English proficiency in their training as medical doctors, universities failed to satisfy students' expectations and facilitate attainment of language proficiency [8]. Altbach (2007) posited that in these environments, students are faced with double cognitive task [9]; studying English as the medium of their chosen studies while trying to improve their English proficiencies [10]. Consequently, in a study from a Gulf University, students acknowledged and identified weakness in English language as a hindrance to their communication and information handling skills [10].

This context highlights the need for studies to identify factors that enable enhancement of English language skills from the perspectives of medical students as the knowledge gap which prevents educators and policy makers from helping students who struggle with communication skills during medical training [11]. Findings from this study will be useful in determining learning and support strategies for students in both multilingual settings and IMPs.

## **Vygotsky's Sociocultural Theory**

Given the context which relates to the importance of the English language and the gaps in medical education literature on factors enhancing EL skills, the theoretical framework adopted for this study is sociocultural theory by Vygotsky (1978). The framework posits that an individual's learning is linked to cultural, institutional, and historical context [12]. Shabani (2016) identifies four core tenets of Vygotsky's sociocultural theory which are (i) learning precedes development, (ii) language is the main vehicle (tool) of thought, (iii) mediation is central to learning and (iv) social interaction is the basis of learning and development [13]. The tenets can be adapted to the study learning environment ranging from curricula outcomes to teaching and learning methods through social interactions. Besides, the use of this theory is preferred as it encapsulates learning as a continuous process of internalization during training in which skills and knowledge are transformed and intertwined between the social and cognitive planes.

When medical students participate in conversations and activities in a multicultural group, they will be able to connect with their peers, and hence assimilate the experience, which includes use of EL in medical training [11]. Therefore, students engage in a wide range of joint activities and subsequently, internalize

the effects and thereafter acquire new strategies and knowledge of the culture in which they are placed [14].

In summary, the gaps in literature and the broad contextual needs and similarities of IMPs leads to exploring medical students' perspectives on factors that can enhance EL skills in medical training

## **Methods**

### **Sampling Context**

A total of 24 medical students from Year 1, 2 and 3 of a five-year IMP [2] participated in six focus group interviews. The students have fulfilled a minimum IELTS requirement of band score of between 6.5 to 7.0 upon entry to the medical programme. Maximum diverse sampling method was used to recruit participants based on inclusion of medical students currently pursuing a medical degree in an IMP (Year 1 to Year 3). The selection of participants from Year 1 to 3 provided the range of pre-clinical and clinical phases to ensure that data could be obtained from participants at different stages of IMP. As this study employed thematic analysis, maximum diverse sampling, without any demographic data had ensured a wide range of perspectives on the factors obtained, following which data were thematically analysed.

### **Data Collection**

#### **Informed consent**

was obtained from participants prior to each focus group interview. The interview was audio recorded to facilitate transcription. Each question was probed to gain in depth perspective of the factors enhancing EL skills. At the end of the interview, participants were given the opportunity to share additional perspectives and contribute further. The interviews were transcribed to identify similarities and differences of perspectives related to factors in focus. The saturation was deemed to be achieved when similar and redundant perspectives shared by the participants and no new information were obtained across the focus groups.

### **Analysis**

The data were analysed using the [15] Braun and Clarke's (2006) framework of thematic analysis. The Braun & Clarke's six steps framework that includes identify and familiarise with the data, identify code, find themes, review the themes, define and naming of each theme and producing the report provides a framework for analysis and distinguished at two levels; semantic and latent. At semantic level, the explicit or surface meanings of the data, based on surfaced themes are analysed, while at latent level, the analysis looks beyond what was said during the interview, giving it more depth in analysis [16]. In Step 1, the data from the transcription were identified and familiarized. The process of 'data familiarizing' was repeated to enhance the familiarity with each data before the coding process was done. In Step 2, initial codes were generated. In Step 3, ongoing process to examine the codes and organized it into broader

themes continued. The initial codes identified were further reviewed and led to emergence of preliminary themes such as *'English language as a learning tool'*, *'university support in English language mastery'* and *'English language for academic progression'*. In Step 4, the preliminary themes identified through data coding and represented the context of the importance of English language skills were reviewed and refined. In Step 5, final themes and subthemes were defined and named. As a result, eight themes were identified under three established factors namely *"Use of EL during medical training and practice"*, *"the influence of university culture and environment in EL Mastery"*, and *"individual language proficiency"* were established. In Step 6, results based on the themes were written.

## Research Team and Reflexivity

The research team consisted of education researchers from an international medical institution who were varied in terms disciplinary perspectives. The first research team member is a language teacher, who has a background in linguistics. The second member is trained in educational psychology and teaches in Health Professions Education Programme. The third team member is a biochemist and medical educationist by training. Throughout the study, the team were actively involved in the process while at the same time aware of own subjectivity based on different backgrounds. Henceforth, the team continuously recognized and reflected during the process to leverage on different perspectives.

## Results

A total of eight themes were identified based on three factors namely *'English language use during medical training and practice'*, *'university culture and environment'*, and *'individual EL proficiency'*. The summary of the factors and themes are illustrated in

### Factor 1: English Language Usage in Medical Training and Practice

#### ***Theme 1 - English Language as a Learning Tool***

In medical programmes, learning activities include lectures, problem-based learning sessions (PBLs), clinical skills and simulation sessions (CSSC), hospital and bedside teaching. It is evident that students perceived EL as a learning tool in these activities as they cited that learning activities are in English.

*"If we're in class, sure, English only speaking, if we're at Clinical Skills & Simulation Centre sure, English only speaking."* FGS3 (L215-216)

Furthermore, students also perceived EL to be an important learning tool as medical learning resources are mainly in English.

*"Reference or the books that we use are mostly used in English. So, English is very important actually in our studies of our medical programme".* FGS5 (L70-71)

## ***Theme 2 - English Language as a Professional Language***

English language is perceived to be equally important as a professional language. Medical students communicate in English with patients, peers and lecturers and participate in external events such as community support, conferences and extra curricular activities (ECAs). Students shared that speaking in English makes them appear more professional, particularly when representing the university in external events.

*"It's also something to do with the image because like if we do if we are representing IMU and going to a different public university in Malaysia for example. So if we since we are carrying the name of IMU, if we converse in English, I would say that it will bring a better image to IMU". FGS2 (461-465)*

## ***Theme 3 - English Language as a Communication Tool***

Medical students communicate with peers formally and informally in learning setting and during social interactions. Furthermore, in IMPs where students are from multilingual backgrounds and nationalities, English language is also the main communication tool.

*"We have people from various cultural backgrounds and different countries, even we have international students here. So, it's logical if we speak in English and we converse with each other in English since that that will make the international students feel more comfortable as they will be able to understand what we're talking." FGS2 (L45-51)*

## **Factor 2: The Influence of University Culture and Environment EL Mastery**

### ***Theme 1 - University Support in English Language Mastery***

As students in IMPs are multilingual with varied cultural backgrounds and nationalities, it was necessary to explore university support in mastering the English language. Students felt that university learning environment with English as a medium of instruction and ECAs have helped in strengthening their command of English. There was visible improvement in English language proficiency for peers who had initially struggled with English language after the first semester of the medical programme.

*"But what I noticed from them is that after the six months of our semester one their English skills like improve tremendously. And when we asked the person about it, what they said was that it was the talking with all the peers was the one that helped them." FGS2 (L136-138)*

To support improvement in EL communication skills, students mentioned that lecturers equally encouraged them to communicate in English.

*"Our lecturer actually encouraged him to speak English more." FGS3 (L577-578)*

### *Theme 2 - Self-initiative and Peer Support in English Language Mastery*

As IMPs enrol students from multilingual and varied socio-cultural backgrounds, some students may face difficulties learning and communicating in an English medium environment.

*"At first I was quite struggling to adapt with English speaking environment." FGS2 (L187)*

Students from multilingual and multicultural backgrounds with lesser opportunities to communicate socially in English expressed that the English speaking environment came as a shock, as some of them did not have experience of speaking with different ethnicities or nationalities. Therefore, in order to improve their English proficiency and cope with learning, students mentioned that they have taken initiatives on their own and approached peers for support.

*"If they really don't know the language, they will come to us and ask us what does it mean... We have to translate it to them, either using their own language, or we use really simple terms to explain it." FGS1 (L790-791, L795-796)*

Besides that, students watched and listened to English reading and entertainment materials, online learning tools and registered for English classes outside the university.

*"I tried to improve myself with a lot of things like, I watch English movies, I listened to English songs. And of course, I tried to gain the courage to speak in English with my friends." FGS2 (L188-189)*

## **Factor 3 – Individual English Language Proficiency**

### ***Theme 1 – English Language for Academic Progression***

Students feel that limitations in English language impacted their learning as they needed more time and effort to comprehend the resources.

*"They might actually be speed lagging behind learning like learning the syllabus, I mean, they have to be/ they have to put like extra effort to learn the same thing that we learned/ we have to learn because maybe it's not in the language that they are comfortable in." FGS1 (653-657)*

Furthermore, assessments such as assignments, presentations, reports and OSCEs are carried out in English. Hence, having poor command of English has an impact on their assessments when examiners are not clear about what is presented.

*"If you are not so proficient in the language, you will have difficulty trying to structure your points according to paragraphs and making the flow look nice. And because of the inability to do that, then the*

*lecturer, the person marking the paper might feel like, this person is all over the place, he doesn't really know what he's writing about." FGS3 (L604-607)*

Lack of English proficiency impedes students' day to day learning. Those who are weak in the language are afraid to ask their lecturers when unsure of the content taught or participate less in Problem Based Learning (PBL) discussions.

*"It's hard when you are among with your peers because you need to let them to understand and also the facilitator to understand. Some they don't know certain my language." FGS5 (L239-252)*

## ***Theme 2 – English Language for Patient Communication***

Students also perceived that proficiency in English language has an impact on patient communication. Lack of English proficiency may cause the interactions to sound rude, awkward and lead to misunderstanding and errors in instructions given to patients. For sensitive issues such as sexual history, medical students explained that proficiency in English is needed when exploring details without causing patients' uneasiness. Most importantly, they felt proficiency helped gain patient's confidence when discussing such matters.

*"I think communication with patients, that will also be a problem because some people I heard my friends say, they directly translate it from Mandarin to English. And then sometimes, it might sound wrong, it might sound rude in English." FGS1 (L688-691)*

## ***Theme 3 - English Language for Personal and Professional Development***

During their studies, students are involved in medical research, meet with visiting professors from other universities, attend conferences and receive training at health clinics and write case reports. These encounters, which are mainly in English, contribute to the personal and professional development of a future doctor. Students explained that English language accuracy is required to review literature, conduct and communicate research, resulting in opportunities to interact professionally in academia or healthcare at both the workplace or collaborating with international colleagues.

*"...eventually when you go out into the working world, when you do literature reviews, when you review other people's research, when you do your own research, eventually you're going to have to reach that level of like academic, that sort of academic standard that is required of the community when they do research projects, and you do literature reviews." FGS3 (L660-666)*

*"For me usage of English might not be very important in a community level, but for professional level like from colleagues to colleagues, we still need to use English or professionalism and to discuss anything about medical, I think it's very important to speak in English." FGS2 (L469-473)*

## Discussion

The aim of this study was to explore factors that enable enhancement of English language skills in an IMP from medical students' perspectives. Evidence obtained from the perspectives resonates with Vygotsky's sociocultural theory, its tenets and model that learning is a continuous process and involves multiple factors in promoting the language usage and its importance within the context of medical education and multilingual settings.

The bidirectional elements of culture, thought and language showed that the factors are multi faceted, aiding in developing contextual social and cognitive skills in multilingual healthcare settings. This is demonstrated through the emphasis on usage of English during medical training and practice, the influence of university culture and environment on EL mastery and students' individual EL proficiency, illustrated in Fig. 2.

Medical students identified that they learnt English language skills through participation in facilitated teaching and learning activities such as PBL and Clinical Simulation and Skills Centre (CSSC). These learning activities provide an opportunity for students to communicate with peers, simulated and real patients. Vygotsky puts forward the concept of Zone Proximal Development (ZPD) in which a learner's level of potential development is determined through adult guidance or collaborative work with more capable peers [17]. Through guided participation, learning and development takes place in a social context between learner and teacher [12] allowing medical students to enhance their English language skills. Evidence show that lecturers emphasised the importance of communication skills and linked it to accuracy in the EL vocabulary.

Besides that, students acknowledged that they had improved their language skills through peer interaction during ECAs. Vygotsky emphasized the dominant effect of social experience on human development was that thoughts developed through social interaction will be internalized through the cultural context in which the learner is placed [18]. Therefore, students develop thought and knowledge within the community of practice where learning in a second language context takes place [19]. To this effect, evidence shows that multilingual students who acquire English language skills experience the assimilation process through peer learning. This correlates with a study conducted among university students from a multicultural background in Canada and Russia on the perceived impact of ECA on foreign language learning. Participants of the study indicated that they had more opportunities to practice speaking in English language, learnt more, strengthened their comprehension and developed communication skills when participating in ECA [20].

Additionally, students observed that in both the learning and healthcare environment, English language is used in a professional setting among other healthcare professionals and for patient care. Vygotsky proposed that mediation (a tool) is often used by learners to resolve a problem or achieve a target, and hence language is considered a significant tool for learners to develop the knowledge that they require [17]. In this context, medical students reminded educators that the English language, as a communication tool, was crucial for person-centred care whereby communication skills is crucial for patient engagement

and safety of care. [21]. This importance as a communication tool is expanded to with peers, and other health professionals and helps them develop personally and professionally too, opening opportunities to further their medical education abroad, specialise or conduct research .

However, students also identified the challenges faced in acquiring the language skills required especially in a multilingual environment and the subsequent impact that may occur from the lack of it. Therefore, they have employed various strategies such as getting peer assistance, enrolling in external language courses to cope with these challenges. Additionally, efforts can be made in the curriculum to support medical students with English learning. At our own institution this was done through the introduction of English Literature and Medicine module as an optional elective for medical students. Dmani (2011) explained that whilst learning takes place informally through observations of doctors' and patients' interactions and discussions of patients' cases, these interactions are often neglected in clinical reports [22]. Hence in fostering medical students' doctor-patient communication, the module was designed to awaken students' emotions and awareness toward empathetic behaviours through English literary texts. More recently another elective module for stories and perspective taking was introduced to understand patient care. In a study to explore the effectiveness of this newly introduced module for dental students, D.Mani et al. (2019) concluded that it facilitates empathy in students, stimulates their self-awareness and motivates students to be perceptive communicators [23].

The study findings do highlight the need to continuously make available English language enhancement programmes and support structures for medical students. Whilst IMPs already have requirements of English competence prior to entry [24], these generic tools like IELTS or TOEFL, may be insufficient for some students to navigate through medical training. Even at our own institution, where English language support is given for students identified through mentor feedback, more can be done to support students who already have the language entry requirement. There are students, as indicated in this study, who would like to gain more social and academic experience in EL to thrive in medical school. One initiative that has been gaining ground is the introduction of humanities to enhance interdisciplinary collaboration, patient communication and care [22]. A study conducted among medical and healthcare students in Taiwan concluded that narrative medicine has positive effects on the students [25]. Recommendations would be to invest and increase access to these types of programmes, diversify the narratives to be inclusive of contemporary culture and arts, and to integrate these programmes with clinically related modules in the medical curriculum, rather than offer them as stand alone modules. Concordantly, Dellasega et al. (2007) suggested broadening the education of medical and nursing students to include interdisciplinary experiences in humanities and emphasised its' relevance to the practice of healthcare providers [26].

This study was limited by the perceptions of medical students of an IMP, in a single institution. With the increasing globalisation of higher education and English as the common language of higher education, medical students of multi demographic settings may have similar or other perception on the factors that enable the enhancement of English language skills.

For future studies, the scope of this study can be broadened to include senior, near graduation or junior doctors this is because they may offer a closer to workplace perspective. Besides that, medical students' perspective in bilingual and monolingual settings can also be investigated and compared to identify similarities and differences in medical students' experiences.

In conclusion, various factors come into play during the students' journey to enhance their English language proficiency. As seen in the results, for the medical students, university culture and institutional support both formally and informally matters in addition to students' self-initiatives and peer support. The context of medical training which includes patient communication, peer interactions and future practice in healthcare also increased the awareness and interest to be proficient in English amongst medical students. Hence, it is imperative that IMPs continue to invest in and broaden approaches both within the formal curriculum and extracurricular activities to support and develop medical students' English language skills.

## **Appendix**

The appendix is not included in this version.

## **Abbreviations**

EL – English Language

IMP – International Medical Programme

ECA – Extra Curricular Activities

PBL – Problem Based Learning

CSSC – Clinical Skills and Simulation Centre

ZPD – Zone of Proximal Development

## **Declarations**

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### **Availability of Data and Materials**

Data were obtained through focus group interviews.

### **Ethics Approval and Consent to Participate**

Approval was obtained via the IMU Joint Committee on Research and Ethics (IMUJC) Project ID No IMU 452/2019

Written informed consent form to participate in the study was obtained from participants prior to the focus group interview. All methods were performed in accordance with the IMUJC guidelines and regulations.

### **Competing Interests**

The authors declare that they have no conflict of interest

### **Consent of Publication**

Written informed consent was obtained from all of participants

### **Authors' Contribution**

The research team consisted of education researchers from an international medical institution who were varied in terms disciplinary perspectives. The first research team member (SC) is a language teacher, who has a background in linguistics. The second member (NH) is trained in educational psychology and teaches in Health Professions Education Programme. member. The third team member (VD) is a biochemist and medical educationist by training. Throughout the study, the team were actively involved in the process while at the same time aware of own subjectivity based on different backgrounds. Henceforth, the team continuously recognized and reflected during the process to leverage on different perspectives.

Each author (SC, NH and VD) have made substantial contributions to the project. VD contributed to the conception of ideas. NH worked on the qualitative design of the work, SC collected and analyzed the data. VD, NH and SC collaboratively did the interpretation of data and have drafted the work or substantively revised it

AND approved the submitted version (and any substantially modified version that involves the author's contribution to the study);

AND agreed both to be personally accountable for the author's own contributions and to ensure that questions related to the accuracy or integrity of any part of the work, even ones in which the author was not personally involved, are appropriately investigated, resolved, and the resolution documented in the literature.

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## **References**

1. Brouwer E, Driessen E, Mamat NH, Nadarajah VD, Somodi K, Frambach J. Educating universal professionals or global physicians? A multi-centre study of international medical programmes design. *Medical teacher*. 2020 Feb 1;42(2):221-7.
2. Harden RM. International medical education and future directions: a global perspective. *Academic Medicine*. 2006 Dec 1;81(12):S22-9.
3. Sadeghi B, Kashanian NM, Maleki A, Haghdoost A. English Language Proficiency as a Predictor of Academic Achievement among Medical Students in Iran. *Theory & Practice in Language Studies*. 2013 Dec 1;3(12).
4. Al-Malki MA. Testing the predictive validity of the IELTS test on Omani English candidates' professional competencies. *International Journal of Applied Linguistics and English Literature*. 2014 Sep 1;3(5):166–72.
5. Maher, J. "English as an international language of medicine." (1987): 283–284.
6. Bennett K, Lyons Z. Communication skills in medical education: an integrated approach. *Education Research and Perspectives*. 2011 Dec;38(2):45–56.

7. Wright KB, Bylund C, Ware J, Parker P, Query JL, Baile W. Medical student attitudes toward communication skills training and knowledge of appropriate provider-patient communication: a comparison of first-year and fourth-year medical students. *Medical Education Online*. 2006 Dec 1;11(1):4594.
8. Chia HU, Johnson R, Chia HL, Olive F. Erratum to "English for college students in Taiwan: A study of perceptions of English needs in a medical context" [*English for Specific Purposes* 18 (2), 107–119, 1999]. *English for Specific Purposes*. 2001;20(2):205-.
9. Altbach PG. The imperial tongue: English as the dominating academic language. *Economic and political Weekly*. 2007 Sep 8:3608–11.
10. McLean M, Murdoch-Eaton D, Shaban S. Poor English language proficiency hinders generic skills development: a qualitative study of the perspectives of first-year medical students. *Journal of Further and Higher Education*. 2013 Jul 1;37(4):462 – 81.
11. Foong AL, Sow CF. Psychosocial and cultural barriers to communication skills learning in a South East Asian medical school. *Journal of Higher Education Theory and Practice*. 2020;20(4):152–63.
12. Scott S, Palincsar A. Sociocultural theory.
13. Shabani K. Applications of Vygotsky's sociocultural approach for teachers' professional development. *Cogent education*. 2016 Dec 31;3(1):1252177.
14. Wells G. The complementary contributions of Halliday and Vygotsky to a "language-based theory of learning". *Linguistics and education*. 1994 Jan 1;6(1):41–90.
15. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative research in psychology*. 2006 Jan 1;3(2):77–101.
16. Maguire M, Delahunt B. Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education*. 2017 Oct 31;9(3).
17. Pathan H, Memon RA, Memon S, Khoso AR, Bux I. A critical review of Vygotsky's socio-cultural theory in second language acquisition. *International Journal of English Linguistics*. 2018 Jan 1;8(4):232.
18. Marginson S, Dang TK. Vygotsky's sociocultural theory in the context of globalization. *Asia Pacific Journal of Education*. 2017 Jan 2;37(1):116–29.
19. Turuk MC. The relevance and implications of Vygotsky's sociocultural theory in the second language classroom. *Arecls*. 2008;5(1):244–62.
20. Makarova V, Reva A. Perceived impact of extra-curricular activities on foreign language learning in Canadian and Russian university contexts. *Apples: Journal of Applied Language Studies*. 2017;11.
21. Santana MJ, Manalili K, Jolley RJ, Zelinsky S, Quan H, Lu M. How to practice person-centred care: A conceptual framework. *Health Expectations*. 2018 Apr;21(2):429–40.
22. DMani S. INTERDISCIPLINARY LEARNING: AN INNOVATIVE USE OF A LITERATURE MODULE IN MEDICAL EDUCATION. *English Teacher*. 2011 Jan 1;40.
23. D. Mani S, Chen NL, Menon V, Babar MG. Stories and perspective taking: Augmenting dental students' understanding of patient care. *Medical teacher*. 2019 Sep 20:1–7.

24. Soemantri D, Karunathilake I, Yang JH, Chang SC, Lin CH, Nadarajah VD, Nishigori H, Samarasekera DD, Lee SS, Tanchoco LR, Ponnamparuma G. Admission policies and methods at crossroads: a review of medical school admission policies and methods in seven Asian countries. Korean journal of medical education. 2020 Sep;32(3):243.
25. Liao HC, Wang YH. Storytelling in medical education: Narrative medicine as a resource for interdisciplinary collaboration. International journal of environmental research and public health. 2020 Jan;17(4):1135.
26. Dellasega C, Milone-Nuzzo P, Curci KM, Ballard JO, Kirch DG. The humanities interface of nursing and medicine. Journal of Professional Nursing. 2007 May 1;23(3):174-9.

## Figures

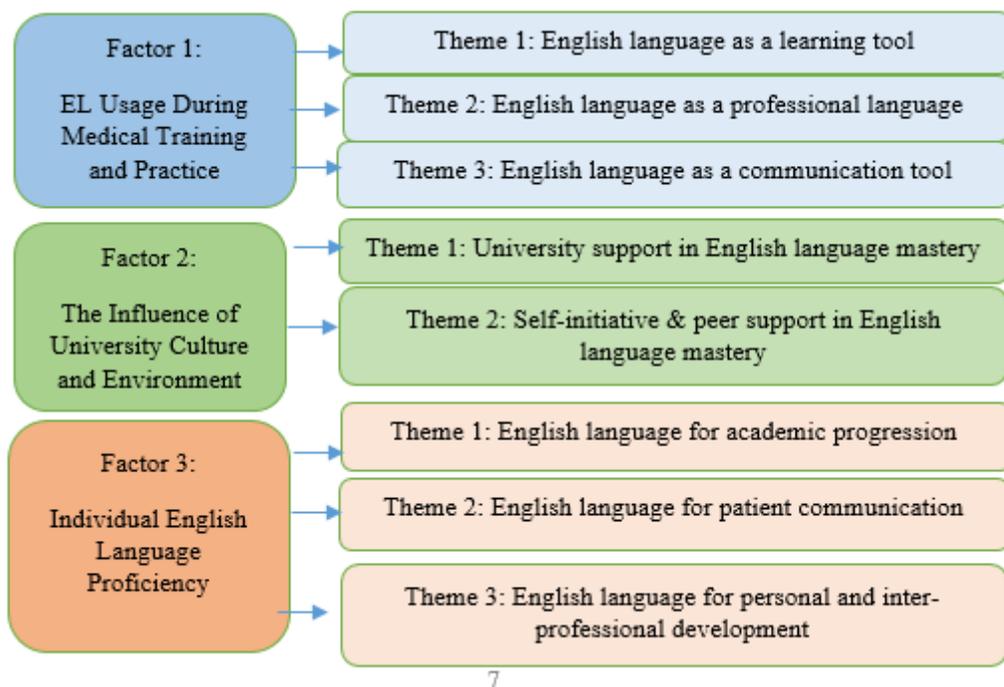
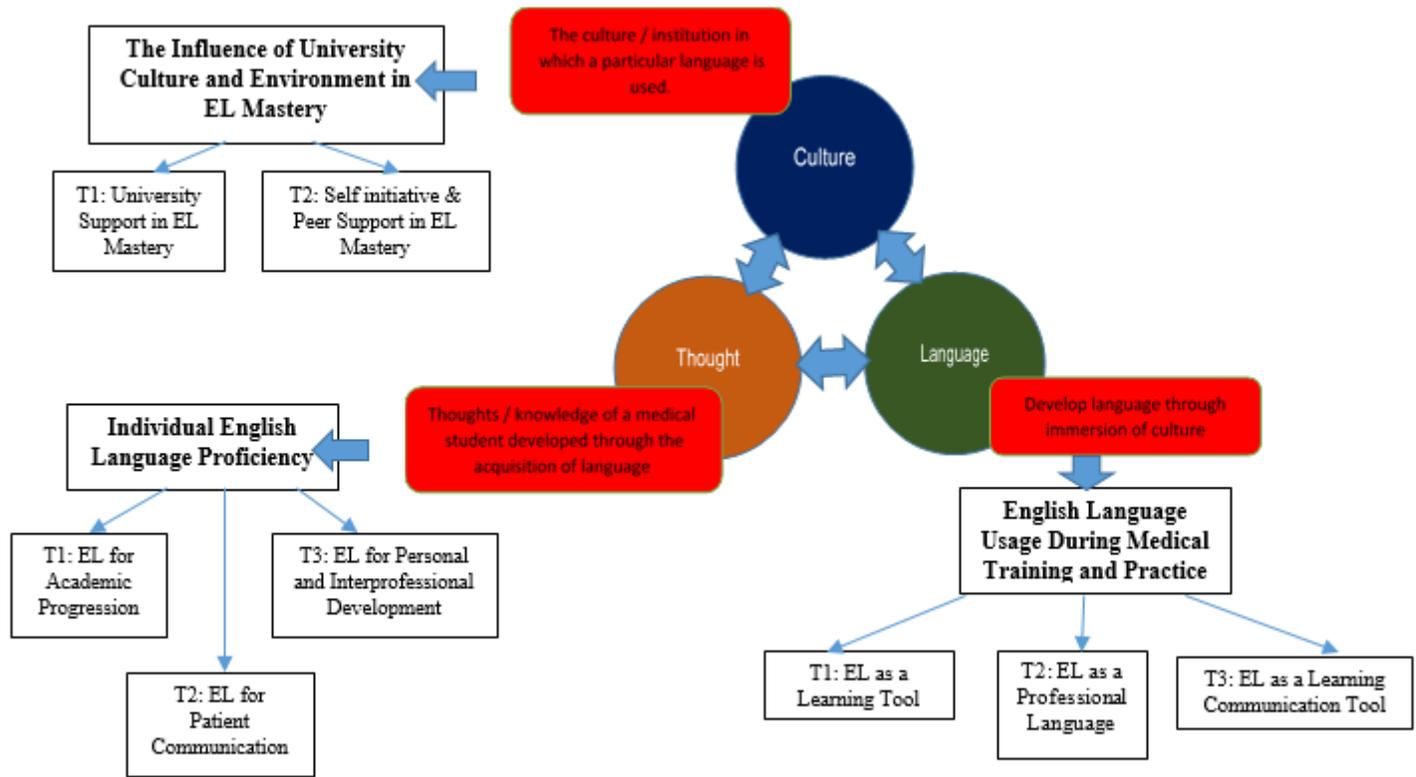


Figure 1

Factors and Themes



**Figure 2**

Relation between Vygotsky’s Sociocultural Framework to Students’ Perception on the Factors Enhancing EL Skills