مشكلة البحث: 
البحوث الطبية تحتاج إلى إجادة القراءة والكتابة. وهناك تقصير في هذا المجال في المجتمعات العربية، ويعزى العديد من المبتديئين في هذا المجال إلى أن العائق الكبير يكمن في اللغة الأجنبية.

أهمية البحث: 
جميع الدول المتقدمة تدرس الطب بلغتها والسودانية تعد من الدول المتقدمة في العديد من المجالات إلا أن الطب فيها بشكل عام والبحوث الطبية بشكل خاص لا ترقى إلا سمعة السعودية.

أهداف البحث: 
العرف على مدى علاقة اللغة العربية في التحصيل العلمي كما ونوعا عند القراءة والكتابة.

منهجية البحث: 
إعطاء طبقة الطب في السنة الخامسة وحدة من كتابهم المقرر بالعبري والإنجليزي ويم تقييم سرعة القراءة والكتابة واستيعابهم للمعلومة.

: نادي
: إعلام

: E-mail: Qj4m
Research Title: Understanding medicine by Arabic language

Summary: (150 – 200 words)

❖ Research Problem:
In Arabic countries, there is a major deficiency in medical research which required good reading and writing. A lot of beginner in this field found the language is the major barrier.

❖ Research Significance:
All developed countries teach medicine using their native language. Saudi Arabia is one of leader countries in many fields but not in medicine and medical research.

❖ Research Objectives:
Identify the relation between Arabic language and understanding (Quantity and Quality) during reading and writing.

❖ Research Methodology:
Fifth year medical students will be given one chapter of their recommended text book in Arabic and English then their fast reading, writing as well as understanding well be evaluated.
# Research Project Proposal

Please, type either in English or Arabic

<table>
<thead>
<tr>
<th>Signature</th>
<th>College/Department</th>
<th>Academic Title</th>
<th>*Investigators Names</th>
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*First name indicates the Principal Investigator (PI).
Second name is the co-investigator designated by the PI to assume all responsibilities, in case of the absence of the PI.
Research Problem and Significance

The language for medical students at the Universities of Saudi Arabia is English, which is their second language. This presents a potential barrier to their academic learning. Since the strongest factors predicting full pass rates was being a native language (1) therefore, language should be used as a tool in medicine in order to refine doctor skills as effective listeners and speakers(2). This well influence their contribution in medical research.
Research Objectives

Little is known about teaching medicine across cultural and linguistic boundaries. The objective of this study is to investigate whether Arabic speaking students studying medicine in English in an Arabic country would be able to understand more and faster the same information if it is given in Arabic language. As well as their ability to write what they understood.
Literature Review

Medieval Islamic medicine in the late Omeyad and early Abbasid periods was based on works translated from the Greek, Sanskrit, Persian, Nabatean and Syriac languages, combining their own experiences in medical practice with the knowledge obtained from these. The majority of sources translated were Greek works; among them, those of Hippocrates and Galen were used prominently. Then well-known figures in medicine got the leadership in medicine such as Abu Bakr el-Razi, Ibn Sina and Ibn el-Nafis. Islamic medicine saw a brilliant development during the Ayyubid period: with the establishment of many hospitals, clinical medicine and practical experience gained importance. These hospitals were at the same time centres of medical education and training. It is also in this period that the first medical school of the Muslim world was set up in Damascus by Muhezzebuddin el-Dahvar (d. 1231) (3).

Atallah (4) reported that the number of Arab physicians exceeds 250,000, but those who studied medicine in Arabic are very few. Adequate translators and other publishing staff are lacking. Teaching medicine in a foreign language did not bring leadership to Arab medicine. It is just another indicator of Arab underdevelopment. There is growing support to shift the language of medical teaching into Arabic, but the only practical step has been the Unified Medical Dictionary. Moreover, teaching medicine in Arabic language has shown very promising result in overall performance (5) (6).

Lack of fluency in the language of instruction can form a barrier to medical education (7) and communication skills (8;9). Since language is the predominant instrument by which information is transmitted between doctor and patient, an understanding of the uses and functions of language in medicine is crucial to effective medical care (2).

Recently more and more medical school adopting problem-based learning PBL. However, Mpofu (10) found the best predictor of students' contributions in problem-based learning (PBL) was levels in English. Moreover, students with a first language other than English reported that language, but not cultural background, was an impediment to effective participation. Therefore, It is recommended that these students be offered extra support for problem-based learning PBL in a subject-based setting (11) (12;13). This will add extra burden in adopting PBL in Arabic countries unless they adopt their native language simultaneously.
Research Methodology

Participants recruitment:
Participant will be recruited from the ORL course for medical students at King Abdulaziz University Hospital in Riyadh.

Inclusion criteria:
Arabic mother language
Finish premedical courses

Exclusion criteria
Unable to finish all the requirements

Data collection:
All medical student in ORL course will be approached for participation in this study. After an initial counseling, inclusion and exclusion criteria will be checked. Then participant will be given a lecture in Arabic translation of ENT medical terms. The root of each medical terms as well as it usages well be explained to the participants. If the medical student is suitable for participation he/she will be randomly allocated to Arabic or English group.

One chapter of recommended text book (translation was approved by king Saud university) well be given to the participants (Arabic or English) according to his group. Participant will read it once and time will be checked. Next, student will be ask to write all the information he/she can remember in 10 minutes. Finally, 30 minutes will be given to each one to reread the same chapter followed by MCQs exam. Each exam will be corrected by same instructor.

Reverse of the group will be done to get more responses and good matching. Arabic group will be given English chapter and English group will be given Arabic translation. Different chapter is given this time and the same evaluations will be done.

Data Analyses:
Unfortunately, there is very limited clinical data on this subject to allow us to make a clear sample size calculation. However, around 250 participants will be enrolled in this study and around 500 response will be collected. All data will be entered in Excel database program and SPSS statistical software will be used for statistical analyses.
References


(3) Sesen R. [The main sources of medieval Islamic medicine and the medical books translated into Turkish in the 10th century texts. Muslim scientists produced original medical works]. Tip Tarihi Arastirmalari 1993; 5:11-20.


## Detailed Budget

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<th>Funds in SR</th>
<th>Effort in months</th>
<th>Names of Investigators</th>
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**Financial Breakdown:**

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**Total Funds:**

26800

**Number of Investigators:**

- 1
- 2
- 3
- 4
- 5

**Number of Assistants:**

- 2

**Number of University Students:**

- 20

**Number of Secretaries:**

- 1

**Number of Other Professionals:**

- 0

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**Notes:**

- All funds are in Saudi Riyals (SR).
- Effort is measured in months.
- Investigator names are listed along with their respective effort in months.
- The total budget summary is presented at the bottom of the table.
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# Research Time Schedule

starting Date 1/7 / 1426 H.

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Planned sequence of major tasks
## Obligatory Agreement

The Principal Investigator (PI) should strictly adhere to and fulfill the following mandatory requirements concerning this research project:

1. The proposed research project has not been previously (or will not be) submitted, either fully or partially, to any other institution.

2. The stated research project objectives will be achieved within the duration of research work.

3. The allocated budget and the stipulated period of the research project are planned accurately, taking all factors into consideration.

4. Progress report forms (one at the end of each semester) as well as questionnaires on the research assistant's activities (if any) will be submitted in due time.

5. Scientific lectures, highlighting the results and conclusions derived, will have to be delivered. This will be arranged with the Research Center during the course of the research at suitable venue.

6. The Research Center will be provided a copy of the research papers, related to the research project, published in scientific journals, conferences, etc.

7. A final comprehensive research report will be submitted by the end of the research project. This report will describe the objectives of the research, literature review and the relevant theoretical background. It will also show in detail the methodologies, techniques and experimental set-up used in conducting the research, as well as the results obtained and analysis carried out. It should include conclusions and recommendations, which might be useful for practical applications.

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Signature (PI): ____________________  
Date: 10/10/1428 H