The Role of Higher Education Institutions in The Arabization Process

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Abstract

Findings of an exploratory study with a sample of students at the colleges of medicine, pharmacy, science, and computer science revealed that English is the medium of classroom instruction and most textbooks in most of the courses at those colleges. Students reported that they do not study the Arabic equivalents of English technical terms in their major area of study. It was found that students have misconceptions about the Arabization processes. Most of them believe that borrowing and transliteration are the only ways English terminology can be transferred to Arabic. Most students never heard of the Saudi Arabic Terminology Databank hosted by KACST. On the basis of the findings, the study recommends that students at the colleges of medicine, pharmacy, science, and computer science be taught the Arabization processes as part of the university Arabic language requirements or in a special Arabization and word coinage course. Students at those colleges must study the Arabic equivalents to English technical terms in their major area of specialization and they must be part of their course grades. To encourage university faculty to translate specialized books, publish books and articles in Arabic and Arabize terminology, use of Arabic must be a requirement of promotion. To encourage graduate students to write their theses in Arabic and to have an active role in the Arabization process, use of Arabic must be considered a partial requirement of the M.A. and Ph.D. degrees. An Arabic glossary of terms should be appended to published books and theses. Students and faculty must be also familiarized with terminology databanks. They should be made accessible to them. Updating terminology databanks and their terminology must be used in writing specialized books in Arabic.

1. Introduction

Arabic is the language of the Holy Quran, and it is the symbol of identity among Arab nations. Arabic ranks fifth among the world's languages in terms of the number of its speakers. It has had - and continues to have - an influence on other languages. There is no language in the world that does not have words borrowed from Arabic. For example, 60% of Persian words and more than 30% of the words in Malay and Indonesian are originally Arabic words. In the Spanish language, there are about five thousand words from Arabic. In the English, there are about three thousand words of Arabic origin, and in Turkish, Urdu, Hindi and even Ukrainian there are words from Arabic. Arabic has linguistic phenomena that do not exist in any other language in the world.

While acknowledging the importance of Arabic, the reality does not reflect this importance. Although the number of Arabic speakers in the Arab world exceeds 400 million, the language of instruction in the fields of medicine, engineering, technology and others, for about a

1

century, and still is English or French. Some Arab universities are proud that they teach all courses, including the humanities and social sciences, in English. Many university professors write their research in English. There is no university student or specialist who does not acknowledge that English is the language of science and technology and that Arabic is far behind in this field. We have a severe shortage of specialized books, whether translated or written in Arabic, and of Arabic terminology in various disciplines (Al-Jarf, 2004a; Al-Jarf, 2004b).

Although the Arabization movement in the Arab world began during the modern Arab Renaissance Era in the early nineteenth century, which contributed to the revival of Arab culture after a long period of linguistic and intellectual stagnation, had major contributions to the process of liberation from colonialism and its linguistic and other effects, in addition to the active role of Arabic Language Academies in some Arab countries, and the great contributions of some linguists and translation workers such as Ahmed Faris Al-Shidyaq and Boutros Al-Bustani, the Arabization movement is currently suffering from stagnation, compared to other developed and non-developed countries in the world that do not speak English, such as Armenia, Greece, Turkey, Korea, China, Indonesia, Japan and Germany, which use the national language in university education.

Several conferences on Arabization have been held, the last of which was the 10th Arabization Conference held by the Arab League Educational, Cultural and Scientific Organization (ALECSO) in Damascus in July 2002 under the title "Issues of Arabization in Higher Education in the Arab World". The conference was attended by the Syrian Minister of Education, the Deputy Director General of ALECSO, the Director of the Arabization Coordination Office, the heads of the Arab linguistic and scientific academies and their representatives, delegations of the participating Arab countries, some members of the Arab diplomatic corps accredited in Damascus, in addition to representatives of some university institutions and Arab bodies specialized in issues of Arabic, Arabization and terminology. The conference discussed a number of topics revolving around Arabization of higher education in the Arab world, its necessity, obstacles, conditions and requirements for its success, terminology databanks, the exchange of terminological data and its dissemination between Arab countries, using computer technology, the role of the unified scientific term in Arabizing higher education and preparing the university scientific book in Arabic, writing and translating, in addition to topics on the role of the university professor in Arabizing higher education in the Arab world and Arabic, the challenges of the new century and the Arab Information Network. The conference stressed that the Arabization movement will remain incomplete and threatened unless it includes all stages of education, and that stopping and slowing down the Arabization process in higher education will lead to intellectual schizophrenia and the existence of a cultural class in the Arab world that threatens its intellectual and scientific growth. Therefore, the Tenth Arabization Conference recommended the following:
- Calling on Arab countries that have not yet begun or completed the Arabization process in higher education to take the necessary measures to achieve this.
- Approving the dictionaries presented to the conference and printing them after putting the final touches on them in the light of the specialized committees' recommendations and finding an appropriate mechanism to invest in the unified dictionaries issued by the Arabization conferences, benefit from them, facilitate their distribution and circulation on a large scale.

- Putting scientific books in the Arab countries that have implemented Arabization in the hands of universities and other similar institutions, and benefiting from the experiences of these countries, and avoiding repeating previous efforts.
- Calling on Arab countries to address the problems of Arabization in higher education in light of the results of the conference research on these problems and diagnosing the causes of obstacles to Arabization and finding appropriate solutions.
- More coordination and cooperation among the institutions concerned and those interested in Arabizing higher education in the Arab world.
- Supporting the Arabization, Authorship, Translation and Publishing Center in Damascus, which ensures the provision of translated and authored higher education books in Arabic and placing them at the disposal of universities and higher education institutions in the Arab world.
- Calling on Arab countries to implement the decisions taken by ministerial conferences and the recommendations issued by seminars and meetings held on Arabization, translation and terminology and the recommendations issued by Arabization conferences.
- Supporting the lexicographic industry and its research and projects that serve the issue of Arabization, such as the linguistic repertoire project, the contemporary Arabic journalistic dictionary project, the terminology standardization project and other lexicography projects.
- Introducing the pioneering and long-standing Syrian experience in Arabizing higher education and other Arabization experiences in Arab countries.
- Noting the initiative of the Libyan Jamahiriya to establish an Arabic Language Academy in support of the other Arab scientific and language academies.
- Conducting an analytical study on the status of Arabization in Arab countries, following up on its progress, and developing a mechanism for its implementation.
- Ensuring that every scientific textbook contains a foreign-Arabic and Arabic-foreign glossary that includes all the scientific terms contained therein.
- Working on publishing translated research and books on the Internet to benefit from them.
- Introducing a terminology course into the university curricula.

The question that arises in this regard is: Have Arab universities responded to these recommendations? Have they taken any steps towards using Arabic in medical and engineering instruction?

2. Aims of Study

This study aims to identify the language used in classroom teaching in the colleges of medicine, dentistry, pharmacy, applied medical sciences, science, computer science and agriculture at King Saud University, and the language of university textbooks that female students study in the courses of the aforementioned colleges, and whether female students study Arabic equivalents of English terms in their various specializations; female students' perceptions of the methods used in the Arabization process, and the extent of female students' knowledge of the Saudi Terminology Databank compiled and hosted by King Abdulaziz City for Science and Technology (KACST), and whether they use it, and the role of faculty promotion and graduate students' graduation criteria in encouraging translation and

Arabization movements, and female students' perceptions of their future role in the Arabization and translation process in their specializations.

3. Study Questions

This study attempted to answer the following questions:
- What is the language of instruction at the colleges of medicine, dentistry, pharmacy, Applied Medical Sciences, Science, Computer and agriculture at King Saud University from the perspective of female students?
- What is the language textbooks in the colleges of medicine, dentistry, pharmacy, Applied Medical Sciences, science, computer and agriculture?
- Do female students study Arabic equivalents to English scientific terms in the their area of specialization?
- What are the perceptions of female students of medicine, dentistry, pharmacy, Applied Medical Sciences, computer sciences, and agriculture about the methods used in the Arabization process?
- Which methods of Arabizing technical terms do male and female students study in the language skills and Arabic writing courses, which are "university requirements?"
- How familiar are female students with the Saudi terminology databank and have they ever used and searched it?
- Do the promotion criteria at Saudi universities require the contribution of faculty members in the translation and Arabization of technical terms?
- Do graduate studies require that master's and doctoral theses be appended with a glossary of technical terms and their Arabic equivalents in the student's area of specialization?
- What are female students' perceptions of their role in the Arabization process?

4. Literature Review

Some studies in the literature have shown the disadvantages of using English in teaching, including a study by Al-Haj Issa and Al-Mutawa (1988) that they conducted at Kuwait University. Their results showed that using English as a means of educational communication constitutes a problem for a large number of students. 64% of faculty at the College of Science at Kuwait University indicated that the students' proficiency level of English is low. 66% of them stated that the College of Science students' weakness in English is the reason for their poor understanding of scientific concepts. 76% stated that the students' weakness in English reduces their motivation to learn. 48% indicated that the students have difficulty understanding English textbook. 54% believed that the students have difficulty understanding lectures delivered in English. In addition, the students are severely weak in English writing and spelling, and have difficulties in speaking orally using correct language, following and summarizing what is said in the lecture. The students had poor knowledge of English scientific terminology. 84% of student participant stated that they have difficulty understanding the scientific concepts taught in English, 80% believe that students who study in English exert more effort than that required if they studied in Arabic. 50% stated that the they suffer from the problem of not understanding English textbook, and 42% find it difficult to understand the professor's explanations in English. 54% of students support teaching science in Arabic because it will give them a better understanding of the scientific material they are studying.

4

Similarly, a study conducted on medical students at Zagazig University, showed that students' answers written in English revealed that only 10% were able to express themselves well, 65% provided the required information but did not express themselves well, and 25% did not understand the information (Al-Sabai 1995).

Moreover, results of a number of studies showed the advantages of using Arabic in university education, including a study by Al-Jarallah and Al-Ansari (1998) conducted with 516 male and female medical students at King Saud University. Results revealed that 49% of the students reported that they understood more than 75% of the lecture when it was given in English, while 45% confirmed that they understood between 25-75% of the lecture. The percentage of comprehension of the lecture increases if Arabic is used with English for about 90% of the students. However, if it is all in Arabic, about 60% of them reported that the percentage of comprehension increases. 40.4% reported that it does not increase. 46% of students reported that they need half the time to read a material written in English if it was written in Arabic, 30% reported that they need a third of the time, 17.7% reported that they need the same time, while 6.3% reported that they need three times the time. Al-Jarallah and Al-Ansari found that 27.6% of students needed a third of the time to write a material in Arabic that was originally in English, 36.9% of them needed half the time, and 27% needed the same time. 45% of students preferred to answer the exam paper in Arabic, 36.9% answered it in English, while 15.1% preferred to answer in Arabic with the terms written in English, and 3% preferred to mix the two languages without order. 50.7% believed that teaching in English reduces the opportunity for participation during lectures. 60% of students support teaching in Arabic, and 8.7% of them believe that there is no difference between teaching in either language. 92.9% of students reported that Arabization could be implemented immediately.

The results of a survey conducted at the College of Medicine, King Faisal University on medical students' attitudes towards Arabization of medical terminology and textbooks showed that 80% of students save a third or more of their time when reading medical texts in Arabic compared to English, and 72% of students save a third or more of their time when writing in Arabic compared to English. Only 23% of students prefer to answer exam questions in English. 75% believe that their ability to answer orally and discuss is better in Arabic (Al-Suhaimi and Al-Bar 1992).

Furthermore, a study conducted by Al-Sabai (1995) on a group of medical students, interns, and resident doctors on the average reading speed in Arabic and English and the percentage of improvement if the text was read in Arabic indicated that the reading speed in Arabic is 109.8 words per minute, while it is 76.7 words per minute in English, i.e. a difference of 23.1 words per minute in favor of Arabic. That is, the reading speed in Arabic is 43% higher than the reading speed in English. It was also found that comprehending a text in Arabic is better than comprehending the same text in English by 15%. That is, the percentage of academic achievement would increase by 66.4% if education was in Arabic, and medical students would save 50% of their time if they read or wrote in Arabic.

There are experimental studies conducted to compare the results of teaching the same course in Arabic and English, including two studies conducted at the American University of Beirut and the University of Jordan on two groups of students, one of which studied a medical curriculum in Arabic and the other studied the same curriculum in English. The results of the

experiment showed that the level of comprehension of the first group was better than the second group (Al-Sabai 1995).

An evaluation study conducted by a group of specialists commissioned by the Jordanian Language Academy entitled "Evaluation of the First Stage in Arabizing University Scientific Education adopted by the Jordanian Arabic Language Academy" showed impressive results. The failure rate decreased from 30% when teaching was in English to only 3% when the students studied in Arabic. Students' knowledge was broader, deeper and more accurate when they studied in Arabic, and saved a lot of time and effort (Abu Helou and Lutfia 1984).

To evaluate the experience of Arabization in technical colleges in the Kingdom, Abu Arafa, Al-Tahami, and Hassan (1998) surveyed the opinions of some professors and students about the teaching of production technology and industrial electronics in Arabic and found that 52% of the instructors believe that teaching in Arabic was a successful experience that deserves encouragement and support. 52% believe that it is necessary to use Arabic in teaching. 25% reported that they have made contributions in the field of Arabization and translation. 71% wanted to teach in English. 84.5% believed that teaching in English was necessary and helped them get a job. A report by the Curriculum Development Department at the General Organization for Technical Education and Vocational Training in the Kingdom (1998) stated that 48.37% of officials in the labor sector believe that the level of workers who are college graduates is generally good, while 44.74% believed that their level is acceptable (Abu Arafa, Al-Tahami, and Hassan, 1998).

Regarding the sufficiency of medical and engineering references in Arabic, 8% of professors and 22% of students believed that Arabic books and references for engineering courses are sufficient and available at the present time. 5% of professors and 13% of students believed that it is necessary to be cautious in starting to teach engineering in Arabic. 48% of professors believed that implementation should be delayed until engineering books and references in Arabic are available. 20% of professors and 11% of students believed that it should be delayed until faculty members are prepared for this purpose (Al-Muhaidib 1998). 76% believed that the number of Arabic references in their field of specialization is good. As for students, 71% of them believed that references in Arabic are available. 44% of students used references in English (Abu Arafa, Al-Tahami, and Hassan, 1998). On the contrary, 92% of faculty members at the College of Science at Kuwait University indicated a severe shortage of Arabic scientific books in the Arabic library (Al-Haj Issa and Al-Mutawa, 1988).

To conclude, prior studies showed that using Arabic in lecturing and using university scientific books in Arabic will increase students' understanding of scientific concepts, improve their academic achievement, reduce the time spent reading written material and writing, increase students' participation in classroom discussions, and increase the success rate. The results of previous studies indicate that a large percentage of students and professors want to use Arabic in the educational process, and the obstacles that prevent its use.

5. Study Samples and Population

Female students sample
The study was conducted on a random sample of 350 female students in the faculties of medicine, dentistry, pharmacy, applied medical sciences, science, computer science and agriculture (50 female students from each faculty) at King Saud University in Riyadh. The

students were in levels two to eight and were studying or have studied the courses "Language Skills" and "Arabic Editing" which are part of the general university requirements. Students who did not study these two courses were excluded.

The Assigned Textbooks

The university requirements at King Saud University include two courses in Arabic, "Language Skills" and "Arabic Editing", with two credit hours per week for each. These two courses are required for male and female students in all faculties at the university except for the Arabic Language Department and the College of Languages and Translation. Each course has a pamphlet prepared by a group of course professors in the Department of Arabic Language and Literature at the College of Arts at King Saud University for the second semester of the academic year 1424/1425 AH. The study population included all the lessons contained in the Language Skills course pamphlet, which is 117 pages long, and all the lessons contained in the Arabic Editing course pamphlet, which is 216 pages long.

The Rules and Regulations governing faculty and worker affairs of Saudi university, issued by the Higher Education Council Resolution No. (4/6/1417), the articles for the promotion of faculty members were selected, namely Articles 21-37 of the Rules and Regulations.

The unified Rules and Regulations for postgraduate studies at Saudi universities issued by the Higher Education Council Resolution No. (3/6/1417 AH), Article 44 was selected regarding the language in which master's and doctoral theses may be written.

6. Study Instruments

The researcher used two instruments:
(1) An interview with an open-ended questionnaire distributed to samples of female students from the colleges of medicine, dentistry, pharmacy, applied medical sciences, science, computer science, and agriculture at King Saud University, which consisted of open questions:
- What is the medium of instruction in the classroom: English or Arabic?
- What is the language of the assigned textbooks: English or Arabic?
- Do you study the Arabic equivalents to English technical terms?
- What do you think are the methods used in Arabizing technical terms?
- What is the Saudi Terminology Databank and have you ever used it or searched it?
- What role do you expect to have in Arabizing technical terms and translating books in your area of specialization after graduation?

A tool for analyzing the linguistic skills and Arabic editing pamphlets, whether they contain a list of methods for generating and Arabizing technical terms, which includes the following: coining, reverse derivation, expansion of derivations, adding new meanings to ordinary vocabulary, reviving old vocabulary, explanation, borrowing from other languages, borrowing with phonetic Arabization, borrowing with partial Arabization, derivation from borrowed words, relative nouns, artificial source, source, active participle, passive participle, noun of time, noun of form, noun of place and time, noun of profession, fa'ala, instrumental nouns (mif'aal, mif'ala, mif'aal, fa'ala, fa'ala, mif'aal, fa'ool), disease nouns in the form (fu'aal), fa'aal, diminutive noun (fu'ael, fa'ael), sound feminine plural, فاعلة، مفعال، مِفْعال، مِفْعَلة، مِفْعَل، فعّالة fa'ala, fa'aal, af'aal, tafa'ala, tafa'ala, infa'ala, ifta'ala فاعول)، أسماء الأمراض على وزن (فُعال)، فعّال، اسم التصغير (فُعيْل، فعيّل)، جمع المؤنث السالم، فعل، فاعَل،

7

افْعَّلِّ، استَفْعَل، فَعْلَل. أَفْعَل، تَفَعَّلَ، تفاعل، انفعل، افْتَعَلَ، (Al-Jarf (2001), Al-Jarf (1994a), Al-Jarf (1994b), Al-Jarf (1990a), Al-Jarf (1994b), Al-Jurf (1995a), Al-Jurf (1994b),

7. Procedures and Data Analysis

First, the researcher interviewed the students individually and recorded their responses on the questionnaire form, then sorted out and classified the responses. To identify the students' opinions on the language of instruction in the classroom, the language of the assigned textbooks, methods of generating terms, the extent to which they studied Arabic equivalents of terms, and their future role in translating the textbooks and Arabizing terms, she used qualitative analysis. What matters here is the quality of the responses provided by the students, not the percentages of the students who provided the same response.

Secondly, the researcher analyzed the content of the pamphlets of the two courses of language skills and Arabic editing prescribed for male and female students of the faculties of medicine, dentistry, pharmacy, Applied Medical Sciences, science, computer science, and agriculture, and searched for methods of Arabization and methods of generating terms in Arabic, and introduced the students to specialized English-Arabic dictionaries, and whether the students knew about Arabic terminology databanks such as the Saudi Terminology Databank, and trained them to extract terms and their Arabic equivalents from the Saudi Terminology Databank and specialized binary dictionaries.

Thirdly, The researcher analyzed the content of the Rules and Regulations governing the affairs of Saudi university faculty, and searched the promotion criteria for any promotion requirements regarding the authorship Arabic scientific/medical textbooks, translation, and Arabization of technical terms, and appending translated and authored books with a glossary of English terms and their Arabic equivalents, and whether the promotion requirements require their contribution to translation and Arabization.

Fourth, the researcher analyzed the content of the unified Rules and Regulations for postgraduate studies in universities and searched for everything that would indicate the Arabization of terms and the use of Arabic in writing the thesis, and whether the postgraduate studies Rules and Regulations require appending master's and doctoral theses with a glossary of English terms related to the subject of the thesis and their Arabic equivalents.

8. Results

(1) Results of interviews with female students
Results of the interviews with female students showed that the language of instruction in the faculties of medicine, dentistry, pharmacy, applied medical sciences, and computer sciences is English, and that the textbooks used are all in English. In the College of Agriculture, Arabic is the language of classroom lectures and the language of textbooks in all courses at all levels, with technical terms mentioned in English. In the College of Science, Arabic is the language of lectures in most courses, with technical terms mentioned in English. Most of the textbooks are in Arabic, unless the course professor is a non-native speaker.

The results of interviews showed that female students study the terms in Arabic when the explanation is in Arabic and the books are in Arabic. However, in advanced levels, when the

explanation is in English, and the textbooks are in English, female students do not study the Arabic equivalents of the English terms in their various specializations.

The results of interviews revealed that most female students in the colleges of medicine, dentistry, pharmacy, Applied Medical Sciences, science, computer science, and agriculture have never heard of the Saudi Terminology Databank and have never used it.

Regarding the methods of generating and Arabizing terminology, the results of interviews with female students at the College of Medicine, Dentistry, Pharmacy, Applied Medical Sciences, Science, Computer Science, and Agriculture showed that the students believe that the method used to translate terminology into Arabic is phonetic transfer only, which shows that the students do not know anything about other methods of Arabization such as derivation, coining, blending, and meanings extension. The students believe that Arabizing terminology is useless, because there are English concepts that do not have an Arabic translation, and their meaning cannot be conveyed in Arabic. They stated that many English terms do not have an equivalent in Arabic. Medicine and science use Latin terms, and Arabic is not useful in this field. Many of them believe that Arabizing terminology will complicate the educational process. They do not know the meanings of many Arabic medical terms such as " كعبرة، والعمر " الحيوي، وخزعة، والأطفال الخدج، الأيض، القوباء، الكزاز". The students believe that due to progress and advancements, medical and engineering terms are more related to English than Arabic. Also, most of the terms are universal, so it is better to study them in English, because English connects all languages, and knowing English terms will facilitate the transfer of knowledge.

(1) Results of the content analysis of Arabic courses

The results of the content analysis showed that the "Language Skills" course includes the following topics: parts of speech, the bare and inflected from of nouns, verbs and letters, the five nouns, the dual, the sound masculine plural, all sound feminine plurals, the indeclinable, the abrogators, the number and the distinction.

As for the topics included in the "Arabic Editing" course, they include spelling and writing skills, common errors, synonymy, generalization, derivation, Arabized and colloquial forms, common errors, the use of dictionaries, linguistic and grammatical errors, punctuation, an example of an aptitude test, the article, summarizing, the business letter, and a sample of final exams.

Although the "Arabic Editing" course contains a chapter titled "Synonymy, generalization, derivation, Arabization and colloquialisms" (10 pages), anyone who reads the content of this chapter will not find any techniques for generating, deriving or Arabizing technical terms. Only criticism of those who use foreign words in Arabic speech. The Arabic editorial memorandum also contains a chapter entitled "Using Dictionaries" (20 pages) and reading these pages shows that they focus on explaining the methods of arranging words in old dictionaries such as Mukhtar Al-Sihah, Al-Mu'jam Al-Wasit, Taj Al-Arus, Al-Qamus Al-Muhit, Lisan Al-Arab, and Al-Sihah.

It is clear that students of colleges in the sample do not study the methods of generating terms and Arabization, nor do they familiarize themselves with specialized English-Arabic dictionaries, nor with Arabic term databanks such as the Saudi Terminology Databank, nor do

they train them to extract terms and their Arabic equivalents from the Saudi Terminology Databank and specialized binary dictionaries.

(3) Results of the content analysis of the faculty promotion rules and regulations

The results of the content analysis of articles 21-37 of the Rules and Regulations for promoting faculty members show that the Rules and Regulations do not require writing research papers in Arabic as part of the promotion requirements, nor do they require the addition of a glossary of English terms and their Arabic equivalents to translated and authored books, nor do they require faculty contribution to Arabization and translation of scientific and medical books in their area of specialization.

(4) Results of the content analysis of the faculty promotion rules and regulations

The results of the content analysis of the unified regulations for postgraduate studies in Saudi universities revealed that Article 44 of the Rules and Regulations states the following:

> *Master's and doctoral theses shall be written in Arabic, and they may be written in another language in some specializations by approval of the university council based on the recommendation of the department and college councils and the council of Deanship Of Postgraduate Studies, provided that they contain a comprehensive summary in Arabic.*

However, the postgraduate Rules and Regulations do not require that master's theses and translated and authored books be appended with a glossaey of English terms and their Arabic equivalents.

(5) The future role of female student

When female students were asked about the nature of the role they can play in serving and developing Arabic in terms of research, writing and translating books, and establishing terminology, they indicated that there is no way out, and what can one person do? They mentioned that the current situation in Arab countries is not conducive to Arabization and translation due to the lack of official Arab governmental bodies that encourage Arabization and translation to Arabic, the lack of encouragement for authors, researchers and translators, and the lack of financial budget for research, Arabization and translation. They mentioned that Europe and America have a plan and a vision for developing sciences and conducting scientific research, while Arab countries do not have research and development centers. Developing Arabic requires a higher-level decision at the level of Arab governments, not individual efforts.

9. Discussion

(1) The Language of instruction
At King Saud University, English is still the language of lectures and textbooks in all courses in the faculties of medicine, dentistry, pharmacy, applied medical sciences, computer science and engineering. This confirms what the Syrian Minister of Education said at the Tenth Arabization Conference about the delay in Arabizing higher education, where he attributed this to a number of reasons that included: (1) Hesitation in issuing binding higher-level

decisions to adopt Arabization as a way of life, as procrastination is only decided by governments; (2) Weakness in national affiliation; (3) Delay in developing terminology; (4) Dispersion of efforts and lack of coordination among those working in the field of Arabization; (5) Lack of seriousness in following up on the implementation of the use of Arabic and the effectiveness of this experience in keeping pace with the spirit of the times.

The results of a number of studies have revealed the reasons for the hesitation and delay in teaching medical and engineering sciences in Arabic, including the study of Al-Mahidib (1998), whose results showed that 30.3% of professors and 51.9% of students believe that the Arabization of engineering education has negative effects as the poor level of engineering college graduates and the isolation of engineers from learning about scientific advancements in engineering (51% and 64% respectively). In addition to the negative attitudes of some faculty members and students towards using Arabic for lectures, believing that English is more suitable for this.

(2) The Language of textbooks in medical and scientific courses
As for the use of textbooks in English in the courses of the colleges of medicine, dentistry, pharmacy, Applied Medical Sciences and computer sciences, it may be attributed to the lack of Arabic references in medicine, pharmacy and computer sciences and their abundance in English and the scarcity of Arabic books written in the fields of medicine, pharmacy, computer science and sciences, and the scarcity of books translated from English into Arabic.

The scarcity of Arabic books written and translated into Arabic is a fact mentioned in the Arab World Development Report for 2002, which stated that the total number of books translated in the Arab world in all specializations is 330. This number is equivalent to one-fifth of what Greece translates, one-tenth of what Turkey translates, and one-fifth of what Japan translates, and is not even equal half of what a small country like Belgium translates. If we take into consideration that small countries like Armenia with a population of three million, and a country like Greece with a population of ten million, are able to keep up with scientific developments, write books, and translate scientific references into their national languages, what prevents Arab countries, whose combined population exceeds the population of the United States, from starting the process of Arabization? It is worth noting that at the beginning of the twentieth century, Kemal Ataturk changed the alphabet used in Turkish from Arabic to Latin. With this decision, the process of writing began using the new alphabet from scratch, and now Turkey is teaching medicine, science, and technology in the Turkish language.

These results are supported by results of a study by Al-Nasser in 1994 on the translation movement in the Kingdom of Saudi Arabia during the period 1351-1412 AH. The researcher found that the translation movement in the Kingdom did not receive the attention it deserved from governmental and civil scientific and cultural institutions. She confirmed that the translated intellectual production in the Kingdom is very small when compared to the requirements of scientific research. The study showed that what was translated over 62 years did not exceed 502 books only, focusing on social sciences, at the expense of other important subjects such as applied sciences, pure sciences, literature, general knowledge, languages, religions, history, geography, translations, psychology, philosophy, arts, and others, which led to an imbalance in the objective balance required by scientific and technical development in the Kingdom. The study showed the weakness of the inclination towards translating scientific and technical books into Arabic compared to global production on these subjects, and that

what was translated in these subjects focuses in generalities without delving into the field of subject specialization.

In addition to the above, the total number of translated books published by the Translation Center at King Saud University since its establishment until now is 148 books, at a rate of 13 books per year, as follows: 6 books in dentistry, 19 books in agriculture, 30 books in science, 8 books in architecture and planning, 13 books in engineering, 15 books in medicine, 11 books in literature, 11 books in education, 8 books in economics and management, 7 books in languages and translation, 9 in veterinary medicine, 11 in administrative sciences. The Translation Center staff stated that a translated book takes 3 years to be translated, peer-reviewed and printed. The Translation Center used to print 2,000 copies of each translated book, but now it prints only 1,000 copies. The Central Library at KSU handles the sales and donation process. Translated books are only sold at the university bookstore and are not marketed outside the university.

(3) Memorizing Arabic medical and scientific terms
The results of the study showed that students of in the different colleges do not memorize Arabic equivalents, unlike their university students in comparable colleges in other countries such as Greece, where the language of instruction and written books is Greek (the mother tongue). In Greece each student must memorize the equivalents of the terms of his/her area of specialization in a foreign language such as English, French or German and take an exam in it and pass it.

(4) Content of Arabic language skills and writing courses
Arabic courses that all university students must study and pass do not play any role in introducing students to the methods of Arabizing and generating terms and developing students' ability to do so. This requires changing the content of the courses and the topics taught in them. It is necessary for students at scientific colleges to study the methods of Arabization and generating new words in Arabic such as:

- النحت: كهرومغناطيسي، "قبتاريخي"، "بيحلوي"، "جوقلة"، "الهندرة" (الهندسة الإدارية).
- الاشتقاق العكسي: "تهميش"، "تعتيم"، "تكشيف"، "تدويل"، "تأصيل"، "عولمة"، "عوربة"، "بسْنَن"، "شجّر"، "علْمَن"، "سَوّق"، "بوّب"، "فهْرَس"، "قنّن"، "برْمَج"، "مَذْهَب"، "سعْوَد"، "مصّر"، "عرّب".
- التوسع في الاشتقاقات: حاسب حاسوب حواسيب حاسبات حسابات محاسب محاسبة محاسبي محاسبية.
- إضفاء معان جديدة على المفردات العادية: تيار سياسي، جناح سياسي، يسار.
- إحياء المفردات القديمة: رتل عسكري.
- الشرح: إعادة انتشار القوات، التحول الديموقراطي، بطاقة الصرف الالكتروني.
- الاستعارة من اللغات الأخرى: إلكترون أنسولين.
- الاستعارة مع التعريب الصوتي: برلمان بركان ورشة عمل.
- الاستعارة مع التعريب الجزئي: حديديك كبريتيك حرفيم قهوين استراتيجية لوجستية سيكولوجية.
- الاشتقاق من الكلمات المستعارة: سرْمَن نقْحَر قسطر ملين بستر مِلين بَيْطَر كرْبَن تلْفَن أيْن دقْرَط سفْلَت هدْرَج قسْطَر بسْتَر مغْنَط تلفز مَيْكَن مَلْيَن أمْرَك فرنس ألْمَن ليزر
- الأسماء المنسوبة: توعوي سلطوي طائفي عرفيّ إرهابي تلقائي عشوائي همجي عدواني إنتاجي منهجي اتحادي تكاملي تكافلي مفرداتي معلوماتي شبابي برامجي طلابي تعاهدي تضامني تكاملي منظماتي أممي عقائدي تتابعي شبابي علماني.
- المصدر الصناعي: تعددية طائفية علمانية خصوصية إنتاجية عقلية واقعية استعمارية اتحادية اندفاعية ديموقراطية انتهازية أولوية تبعية عنجهية تلقائية عدوانية إرهابية محاسبية صلاحية قابلية مفرداتية معلوماتية شبابية منظماتية أممية عقائدية.
- المصدر: عولمة عوربة.

- اسم الفاعل: ناقلة جنود، حاملة طائرات.
- اسم المفعول: مدروس مسموع مقروء مكتوب مفهوم مرهون.
- اسم المرة: صدمة ضربة شحنة دورة جولة ثورة كدمة.
- اسم الهيئة: قِتْلة جِلسة ميتة.
- اسم المكان والزمان: منتدى ملتقى مؤسسة مصلحة وكالة جمعية رابطة.
- اسم المهنة: نقابة صرافة عمارة ملاحة صناعة رقابة.
- فعالة: برادة حثالة قصاصة.
- أسماء الآلة (مفعال مفعلة مفعل فعّالة فاعلة مفعال فاعول): قاذفة حافلة مدمرة.
- أسماء الأمراض (فعال): عصاب ذهان احتقان اختلال احمرار انسداد اعتلال اعوجاج.
- فعّال: فنان، عداء جراح طيار قناص.
- اسم التصغير (فُعيْل ، فعيّل): كتيّب كُهَيْرب نجيم بطين شعيرات حويصلات.
- جمع المؤنث السالم: فطريات إنسانيات لسانيات رياضيات روحانيات.
- فعل: كسّر، مزّق، قطّع فرّق جمّع شتّت ضعّف حمّل كذّب جيّش خيّم صعّد صوّب وجّه.
- فاعَل: قاتل حارب هاجم صارع كاتَب شارك قاوم.
- أفْعَل: أقدم أدبر أقبل.
- تَفَعَّل: تَفَرَّق تقَطَّع تَعَظَّم تتبع تعرف تبنى تفوق تحقق تبين.
- تفاعل: تطاير تجاهل تفاعل تدارك تحامل تداعى تماسك تطاير.
- انفعل: انشقّ انكسر انكشف انقلب انقطع انطفأ انطلق انخفض.
- افْتَعَل:افترق اكتسب التمس اعترض اشتعل.
- افْعَلّ: احتل، ازرق.
- استَفْعَل: استولى، استشرف، استغل.
- فعلل: زلزل جلجل ثرثر جرجر سلسل غلغل دمدم ململ لعلع لف لفلف كف كفكف.

Al-Jarf (2001), Al-Jarf (1994a), Al-Jarf (1994b), Al-Jarf (1990a), Al-Jarf (1994b), Al-Jurf (1995a), Al-Jurf (1994b),

(5) Introducing students to specialized dictionaries and term databanks

Arabic courses, that all university students are required to study and pass, do not play any role in introducing students to English-Arabic dictionaries in various specializations, whether they are printed or online. The Arabization Coordination Office has held nine Arabization conferences in which it approved more than one hundred and fifty thousand terms, all of which were published in trilingual dictionaries (English, French, and Arabic) and are available on the office's website. The courses do not also introduce students to terminology databanks such as the Saudi Terminology Databank (BASM) affiliated with King Abdulaziz City for Science and Technology, which contains approximately 400,000 term records in all scientific fields (Al-Jarf, 2001).

(6) Promotion rules and graduate studies rules and regulations

The rules for the promotion of faculty members and the graduate studies Rules and Regulations, in their current form, do not encourage faculty members to write books and research articles in Arabic, and the necessity for them to be active in the Arabization movement and term generation, each in his/her area of specialization. The translation of some specialized books by faculty members in their area of specialization is an optional endeavor. Professors and students will not take the translation and Arabization tasks and responsibility seriously if they are not linked to obtaining a promotion or an academic degree.

(7) The future role of female students in the translation and Arabization proces:

Despite female students' feeling of shortcomings in Arabization and translation, and the backwardness of Arabic in terminology and published material in the medical, engineering,

scientific and technological fields compared to English, they do not feel that they have any role or responsibility in the Arabization and translation process in there are of specialization. Therefore, it is necessary to develop feelings of pride in Arabic, and the necessity for each of us to have an active role in raising the status of Arabic.

10. Recommendations

In order for Saudi universities have an active role in the Arabization process and creating Arabic equivalents to English terms, this study recommends the following:

- Developing feelings of pride and belonging in Arabic as a national language among students in all levels of study, especially the university level.

- The necessity of changing the content of Arabic skills and editing courses and replacing them with topics that focus on methods of Arabization, derivation and generation, or offering a course in Arabization methods for students of scientific colleges as part of the university requirements.

- Memorizing the Arabic equivalents of foreign terms should be an integral part of the requirements for passing all scientific college courses.

- Motivating university faculty to translate and write in Arabic using Arabize terms, and encouraging graduate students to write their theses in Arabic and contribute to the Arabization of terms. It is necessary to make this a requirement for promotion and a requirement for obtaining a master's and a doctoral degree, by appending master's theses and translated and authored books with a glossary of English terms and their Arabic equivalents.

- Linking research and translation centers in Saudi and Arab universities to an online network.

- Establishing a database for translators, translated books, specialized Arabic dictionaries and Arabization conferences in the Arab world on the Internet.

- Although there are many specialized dictionaries in all fields, most of them were written in the sixties, seventies or eighties and only one edition was published. They have not been continuously updated by adding new meanings and terms. This is because those in charge of compiling specialized dictionaries are individuals, not institutions and groups of specialists who share the burden of work. Therefore, the compilation of specialized dictionaries should be collective activity that is undertaken by a specialized organization or publishing house. Although scientific academies have developed many terms, the problem lies in that these efforts are scattered, and many specialists have not heard of them, and even if they hear of them and want to use them, they are not made available to them. Therefore, all language academies in Arab countries should be linked to a unified network on the Internet. It is necessary to put translated terms on the Internet.

- The need for official bodies such as translation centers in universities, the Arabization Coordination Center, or King Abdulaziz City for Science and Technology to develop a long-term plan for translating specialized books and research, specifying a list of books that need to be translated in various specializations, and setting a time frame for them. In

order for specialized books to be translated in a short time, the book should be translated by a team of specialists in the scientific material, Arabic language, or linguistics, so that each specialist translates one chapter of the book. Thus, the translation of one book can be completed within a month or so.

- Benefiting from the Syrian experience in Arabizing university education. Textbooks and specialized terms can be exchanged with Syrian universities.

- Benefiting from the experiences of other countries such as Japan, Korea, China, Russia, and Greece in translation and transfer of sciences and learning about the mechanisms that they use in translating research and terminology and methods of preserving their national language.

- Establishing magazines for translation and Arabization that are available to university students and instructors.

11. Conclusion

Due to the political, economic and technological changes and developments that have occurred in the world in the past few years, the number of books, references and research published in English is increasing, and the number of books, publications and research written in Arabic is decreasing, and the few that exist are stagnant and suffer from the lack of interest of the public in reading them. Despite the many conferences on Arabization and the language of university education that have been held, and the existence of many Arabic studies that have tried to assess the opinions of professors and students on the use of Arabic and English in education, and shedding light on the advantages of using each of them in university education, and the obstacles that prevent Arabization, the recommendations presented by those conferences, seminars and research seem to have no value . How long will English remain the language of higher education in our country? The question remains open, and answers are still needed.

References
[1]   Abu Arafa, Adnan, Al-Tahami, Omar & Hussein, Al-Amin (1998). Arabization and translation efforts: Evaluation and organization. Proceedings of the symposium on generalizing Arabization and developing translation in the Kingdom of Saudi Arabia. Riyadh: King Saud University.
[2]   Abu Helou, Yaqoub & Lutfia, Lutfi (1984). Evaluation of the first stage in Arabizing university education adopted by the Jordanian Academy of Arabic Language. The Arab Journal of Humanities. 14, p. 90.
[3]   Al-Hajj Issa, Misbah & Al-Mutawa, Najat (1988). Arabization and the problem of using English as a means of educational communication in the College of Science at Kuwait University. Vol. 4, No. 15, pp. 47-94.
[4]   Al-Jarallah, Hamad & Al-Ansari, Lubna (1998). Opinions of medical students and their positions on teaching medicine in Arabic. Proceedings of the symposium on generalizing Arabization and developing translation in the Kingdom of Saudi Arabia. Riyadh: King Saud University. Pp. 437-453.
[5]   Al-Jarf, R. (2004a). Attitudes of youth towards using of both Arabic and Englishs in education. KSA: King Saud university, Saudi Arabia.

[6]   Al-Jarf, R. (2004b). College students' attitudes towards using English and Arabic as a medium of instruction. Globalization and Education Priorities. pp 1-15. College of Education, King Saud University, Saudi Arabia.

[7]   Al-Jarf, R. (2001). Electronic Dictionaries in Translation Classrooms in Saudi Arabia. Linguistica Communicatio; 10, 27-134. ERIC ED613066. Google Scholar

[8]   Al-Jarf, R. (1994a). English and Arabic Compounds for Translation Students. https://www.researchgate.net/publication/281003419. Google Scholar

[9]   Al-Jarf, R. (1994b). English and Arabic Inflectional Systems for Translation Students. https://www.researchgate.net/publication/281003416. Google Scholar

[10] Al-Jarf, R. (1990a). *A Contrastive analysis of English and Arabic morphology.* https://www.researchgate.net/publication/31 2193999. Google Scholar

[11] Al-Jarf, R. (1990b). English and Arabic Word-formation Processes for Translation Students. https://www.researchgate.net/publication/281003183. Google Scholar

[12] Al-Jurf, R. (1995a). A Contrastive Analysis of English and Arabic for Translation Students. https://www.researchgate.net/profile/Reima-Al-Jarf/publication/268274970 Google Scholar

[13] Al-Jurf, R. (1995b). Contrastive Analysis for Translation Students. https://www.researchgate.net/publication/268274970. Google Scholar

[14] Al-Muhaidib, Abdullah (1998). The reality of Arabizing engineering education in the Kingdom of Saudi Arabia. Proceedings of the symposium on generalizing Arabization and developing translation in the Kingdom of Saudi Arabia. Riyadh: King Saud University. pp. 517-536.

[15] Al-Muhandis, Ahmed Abdul Qader & Bakri, Saad Ay Al-Hajj (1998). Translation at King Saud University. Proceedings of the symposium on generalizing Arabization and developing translation in the Kingdom of Saudi Arabia. Riyadh: King Saud University.

[16] Al-Nasser, Noura Saleh (1994). Translation of books into Arabic in the Kingdom of Saudi Arabia: A bibliometric study. Master's thesis. Riyadh: Imam Muhammad ibn Saud Islamic University.

[17] Al-Sebai, Zuhair Ahmad (1995). My experience in teaching medicine in Arabic. Dammam: Eastern Province Literary Club.

[18] Al-Suhaimi, Suleiman & Al-Bar, Adnan Ahmad (1992). Medical students' attitudes towards the Arabization of medical education. Risalat Al-Khaleej Al-Arabi. Issue 42, pp. 41-65.

[19] Curriculum Development Administration (1998). Report of the Curriculum Development Administration on the results of the curriculum evaluation questionnaires from the point of view of officials in the work sectors, faculty members in technical colleges, graduate students. Riyadh.