

SIGNIFICANCE OF ENGLISH LITERACY AND ACADEMIC PERFORMANCE OF MEDICAL STUDENTS IN USIM

SUHAILA SANIP & NOOR FADZILAH ZULKIFLI

ABSTRACT: English had been thought as one of the determining factor of academic excellence in medical school as students with better command of English are thought to have better understanding of the subjects compared to students who have poor command of English. English literacy has also been thought to be correlated with academic performance in medical school. While a lot of researches had been conducted on the relationship of English language proficiency and academic performance among non-native English speakers in other countries. The study on Malaysian medical students regarding this issue is still limited. The study was conducted to look at the correlation of English literacy and academic performance of medical students in USIM (Universiti Sains Islam Malaysia or Islamic Science University of Malaysia). This is a retrospective observational study. The results for "English for Medical Sciences" in Semester 4 was compared to the performance in Pathology course in the Second Professional Examination in Semester 6. A correlation study showed no correlation between the English literacy and the academic performance of the medical students with $r = -0.027$. Therefore, there is no significant correlation between the English literacy and the academic performance of the medical students in USIM.

KEY WORDS: English literacy, academic performance, medical student of USIM, and English language proficiency.

INTRODUCTION

English had been the medium of instruction of most medical schools in Malaysia. This could be due to the fact that Western countries had led technology advancement in medicine long ago and most textbook and references are written in English. In our Faculty of Medicine and Health Sciences USIM (Universiti Sains Islam Malaysia or Islamic Science University of Malaysia), students were expected to master at least three languages: (1) English is the medium of instruction in medical subjects; (2) Arabic language is the medium of instruction for memorization of Qur'anic verses and subjects related to the teaching of Islam; and (3) Malay language will be the language they use when communicating with patients in the teaching hospitals.

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Although English is not the mother's tongue of Malaysian, the English language proficiency is a pre-requisite for entrance into medical schools. Although patients seen in the clinical settings mostly speak Malay, English language proficiency is important as doctors in Malaysia do see patients who are from different countries and speaks different languages. Rather than learning all different languages of the patients, doctors mostly either speaks in Malay or English to their patients. In cases where patients cannot speak Malay or English, patient always bring their translator with them for easy communication. English proficiency is also very important in medical field as it is the medium of communication amongst medical colleague locally or abroad when they discuss interesting cases or refer clinical cases to their superior.

English language proficiency required of a medical student comprises a few components. The main components of proficiency are speaking, writing, and reading. The importance of speaking proficiency is very apparent in the clinical phase. Students who cannot articulate their words fluently may have a problem explaining their answers to clinical examiners. Students who do not have enough vocabulary knowledge may face difficulty explaining their answers in written examinations and; while reading textbooks which is written academically in English.

On average, Malaysian medical students had undergone eleven to twelve years of English language training prior to entering the university. The students then sat for a national English language test called "Malaysian University English Test" (MUET) which is applicable to all candidates entering Malaysian universities. The reliability of MUET scores, as entrance criteria for entry to some medical schools in Malaysia, has been argued. International Medical University, for example, developed their own English Placement Test (EPT) to reflect medical students English literacy as MUET or IELTS (*International English Language Test Score*) may not cover certain domain of English language literacy which is important in the medical field (Doray *et al.*, 2007; and Periera *et al.*, 2007). In our faculty, MUET score is also used as entrance criteria on top of other academic merits. Students should score a MUET band of 4 or higher in order to be accepted into medical faculty.

Once accepted as a medical student, they will receive a further two years of English training in the faculty through a subject known as "English for Medical Sciences". In the first half of the semester, students were taught mainly on the communication aspect of English in the medical environment; while in the second semester, students were taught on writing reports, memos, and medical texts comprehension. Assessments of the students were conducted in written format accordingly.

LITERATURE REVIEW

In order to excel in medical school, English literacy has been thought to be correlated with academic performance in medical school. To further support the importance of English in medicine, P. McCoubrie (2004) argued that in examination questions construction, any confusion over grammar or question structure invalidates the test as this extra grammatical variable does not relate to knowledge of the subject. Grammatical error also discriminates against examinees whom English is not their

first language as their cognitive processes may work slightly less efficiently in the second language (Paxton, 2000).

In a similar study conducted locally by S. Doray *et al.* (2007), they noted that as for either MUET (Malaysian University English Test) or IELTS (*International English Language Test Score*), there was no significant correlation between the students' English Language proficiency and their academic performance. A study conducted by C. Periera and B. Budgell (2007) on Biomedical science students noted that there's only little relationship between biomedical language ability and either first language or language instruction prior to university entrance. They also concluded that the language abilities of Malaysian students in Biomedical is on par with those of their Australian counterparts (who is English native speakers) and substantially higher than the abilities of matching cohorts from Japan. Therefore, is it true that language ability only play a small roles in determing medical students academic excellence?

Similar studies conducted in other countries give out contradicting results. The studies which resulted in a positive correlation between English language proficiency and academic performance was conducted by Yenna Salamonson (2008) on 273 first year nursing students who speak English as second language. M.O. Hassan *et al.* (1995) found a significant positive correlation between results in English and the alimentary system whereas foundation sciences courses results in the CVRUS (Cardiovascular, Respiratory and Urinary System) were not correlated with English proficiency. They concluded that the contradicting result could be due to the structure of the English language course or the new objectives and structure of the CVRUS course.

Most researches in this topic also proposed that English should be taught according to the need of the students and even medical practitioners. A need analysis should be carried out among the students before English language curriculum is developed. The need analyses ensure better success of the English language proficiency intervention programs as suggested by V.R. Chur-Hansen (1998) and Anna Chur-Hansen (2007).

Some researches also proposed methods of effectively teaching English language proficiency to the students. Trish Stoddart (2002) proposed that the integration of inquiry science and language acquisition enhances learning in both domains. This is not the case in our faculty. English is taught as university core courses and faculty core courses. The English as university core course is delivered to students for the whole university regardless of faculties. English for Medical Sciences is taught as faculty core course and the content is related generally to the medical field. However, the course content need to be further scrutinized so that it matches the learning needs of the student and the learning outcome of the course.

The delivery method of the course should be taken into consideration too. Accordingly, P.R. Léonard proposed that low academic achievers may benefit from peer discussion of explanatory tasks while high academic achievers benefit more from writing explanation which enhances comprehension more than restricted writing activities (cited in Fen Wang, 2004). It is clear that students should be divided

according to their language proficiency and delivery methods for each language proficiency level should be tailored according to their ability or competence.

OBJECTIVE, MATERIALS, AND METHOD

The main objective of the research is to study the correlation of English literacy and academic performance of medical students in USIM (*Universiti Sains Islam Malaysia* or Islamic Science University of Malaysia) in the subject of Pathology.

This is a retrospective observational study on 43 third year medical students in USIM in 2009. The results for “English for Medical Sciences II” in Semester 4 were compared to the performance in Pathology course in the Second Professional Examination in Semester 6.

Pathology was chosen as the subject of choice as it is perceived by the students as the most difficult medical subjects. A lot of reading and text book comprehension is needed for the students to pass the subject examination.

RESULTS

Majority of the students is female (62.79%) and all of the students are Malay in ethnic. About 1/3 of the class passed in English with good marks. The average score obtained by the students for English is 57.37 while for pathology; the average score obtained by the students were 58.16. No students scored A in English and only one student scored A-. All students passed the English examination. In pathology, six student managed to get A and A-. About 7% of the students failed in pathology. A correlation study was carried out using SPSS version 15. The result of the statistical analysis showed no significance correlation between the English literacy and the academic performance of the medical students with $r = -0.027$.

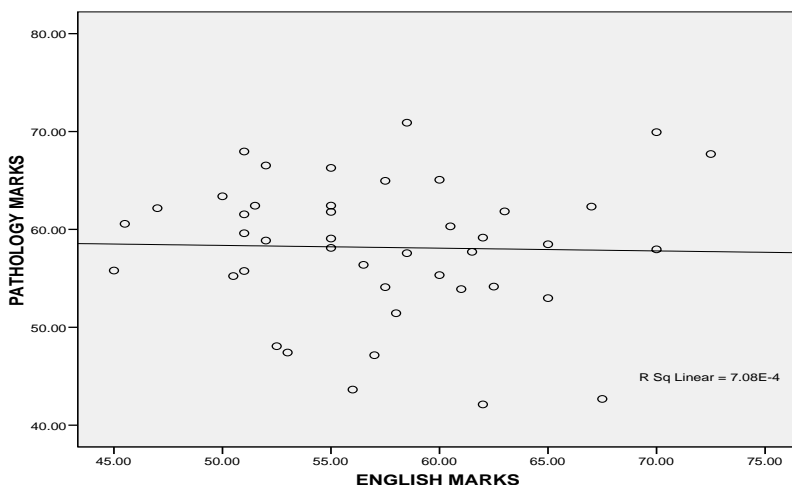
Table 1:
Descriptive Statistics

	N	Minimum	Maximum	Median
ENGLISH MARKS	43	45.00	72.50	57.0000
PATHOLOGY MARKS	43	42.12	70.90	58.8600
Valid N (listwise)	43			

Table 2:
Correlations

		ENGLISH MARKS	PATHOLOGY MARKS
ENGLISH MARKS	Pearson Correlation	1	-.027
	Sig. (2-tailed)		.866
	N	43	43
PATHOLOGY MARKS	Pearson Correlation	-.027	1
	Sig. (2-tailed)	.866	
	N	43	43

Figure 1:
Correlations



DISCUSSION

The result of this study, and other studies conducted by other researchers before, provide a strong basis for a new intervention in providing language support for the medical students in our faculty. The delivery of English language support should be tailored to the need of the students in the faculty. The planning of English language literacy curriculum should include a thorough and comprehensive learning need analysis involving the students and the lecturers both in basic and clinical sciences.

The delivery of the English language curriculum should also look into each student individual needs. As personal coaching may not be the perfect mode of delivery, students should be stratified according to their English language proficiency. Weaker students should be given more attention on developing their language literacy, while better students can be coached on further development of their language literacy.

CONCLUSION

English had been thought as one of the determining factor of academic excellence in medical school as students with better command of English are thought to have better understanding of the subjects compared to students who have poor command of English.

However, our study had showed that there is no significant correlation between the English literacy and the academic performance of the medical students in USIM

(Universiti Sains Islam Malaysia or Islamic Science University of Malaysia). Our findings also support findings of the research conducted by S. Periera *et al.* (2007). A larger study ideally involving bigger number of medical students, other ethnicity, and other well establish medical schools is needed to confirm our findings.

REFERENCES

- Chur-Hansen, Anna. (1997). "Language Background, Proficiency in English, and Selection for Language Development" in *Medical Education*, 31(5), pp.312-319.
- Chur-Hansen, Anna. (2007). "Assessment of English-Language Proficiency for General Practitioner Registrars" in *Journal of Continuing Education in the Health Professions*, 27(1), pp.36-41.
- Chur-Hansen, V.R. (1998). "Clinical Teachers' Perceptions of Medical Students' English Language Proficiency" in *Medical Education*, 32(4), pp.351-356.
- Doray, S. *et al.* (2007). "Correlation between English Language Requirements and English Placement Test (EPT): Do We Need an EPT?". *Paper* presented at the International Medical Education Conference in Kuala Lumpur, Malaysia.
- Fen Wang, L.L.B. (2004). "An Academic Writing Needs Assessment of English-as-a-Second-Language Clinical Investigators" in *Journal of Continuing Education in the Health Professions*, 24(3), pp.181-189.
- Hassan, M.O. *et al.* (1995). "Contribution of English Language to the Learning of Basic Medical Sciences in Sultan Qaboos University" in *Medical Teacher*, 17(3), pp.277-282.
- McCoubrie, P. (2004). "Improving the Fairness of Multiple-Choice Questions: A Literature Review" in *Medical Teacher*, 26(8), pp.709-712.
- Okhee, Lee. (1995). "Science Knowledge and Cognitive Strategy Use among Culturally and Linguistically Diverse Students" in *Journal of Research in Science Teaching*, 32(8), pp.797-816.
- Okhee, Lee. (2004). "Teacher Change in Beliefs and Practices in Science and Literacy Instruction with English Language Learners" in *Journal of Research in Science Teaching*, 41(1), pp.65-93.
- Paxton, M. (2000). "A Linguistic Perspective on Multiple Choice Questioning" in *Assessment & Evaluation in Higher Education*, 25(2), pp.109-119.
- Periera, C. & B. Budgell. (2007). "Assessing the Biomedical Literacy and English Language Skills of Malaysian Health Sciences Students". *Paper* presented at the International Medical Education Conference in Kuala Lumpur, Malaysia.
- Periera, C. *et al.* (2007). "Are English Language Requirements Valid and Reliable Entry Criteria that Determine Expected Academic Performance In Phase 1 of Medicine Course at IMU?". *Paper* presented at the International Medical Education Conference in Kuala Lumpur, Malaysia.
- Periera, C. & N. Lee. (2007). "The Effectiveness of the English Course in Improving Students' Language Proficiency". *Paper* presented at the International Medical Education Conference in Kuala Lumpur, Malaysia.
- Perkins, R. *et al.* (2007). "Assessing Biomedical English Competency: A Fair, Valid, Sensitive, and Reliable Approach". *Paper* presented at the International Medical Education Conference in Kuala Lumpur, Malaysia.
- Richard, C. (1998). "A Language-Focused Needs Analysis for ESL-Speaking Nursing Students in Class and Clinic" in *Foreign Language Annals*, 31(2), pp.203-218.
- Salamonson, Yenna. (2008). "English-Language Acculturation Predicts Academic Performance in Nursing Students who Speak English as a Second Language" in *Research in Nursing & Health*, 31(1), pp.86-94.
- Stoddart, Trish. (2002). "Integrating Inquiry Science and Language Development for English Language Learners" in *Journal of Research in Science Teaching*, 39(8), pp.664-687.