

**In the Right Place at the Right Time:
Asian English Accents in a Listening Test for
Healthcare Professions**

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Abstract

The rise of medical tourism and the increasing number of international patients from Asian countries have led Thai healthcare professionals to serve a lot of Asian patients and to encounter a complexity of language use in their workplace. There is a necessity for these professionals to strive for an understanding of Asian accents spoken by the patients in order to ensure successful communication and subsequently to best provide them with high-quality medical services. Therefore, the ability to understand Asian accents has become necessary for healthcare professionals. To enhance test validity and authenticity and promote beneficial washback, English proficiency tests used in healthcare professions should include a variety of Asian English accents. Unfortunately, these tests limit accents to the inner-circle varieties. With a high tendency of encountering Asian speakers, it seems unreasonable

to ignore Asian English accents and expose healthcare personnel to the inner-circle varieties only in listening tests. Thus, the inclusion of Asian English accents in a listening test for healthcare professions is significantly needed. This paper mainly discusses the rationale for incorporating Asian English accents as test input and addresses methodological concerns in the development of a listening test with various accents.

Keywords: Asian English accents, listening test for healthcare professions, healthcare professionals

Introduction

With an increasing number of Nonnative English Speakers (NNESs) and their widespread use of English as a lingua franca or an international language in varied contexts of communication, the ability to understand and negotiate linguistic variations and different norms of English use or *repertoire of World Englishes* has been highlighted and viewed as crucial to English users today (Canagarajah, 2006; Jenkins, 2006; Brown, 2014). For English users in Thailand, particularly healthcare professionals, the ability to understand and to deal with different varieties of English has become more important than ever.

While achieving its success as a well-reputed medical tourist destination in Asia, Thailand has experienced an increasing flow of international patients (NaRanong & NaRanong, 2011; Shippen, 2014). There were around 2.35 million international patients in 2014 (Thailand Board of Investment, 2016). Patients from Asian regions have become a fast-growing group and target markets of many Thai leading hospitals (“AEC Thai,” 2014; “ASEAN network,” 2014). Therefore, Asian patients have become major English interlocutors in Thai healthcare contexts.

Amongst the diversity of English users and complexity of English accents, some healthcare personnel have faced difficulties

in understanding speech of international patients, particularly of NNESs (Waidarp, 2011; Pandey & Sinhaneti, 2013) despite passing an English proficiency test with the required score for their jobs. One major source of these difficulties was that they were not adequately prepared to understand unfamiliar NNESs accents (Pandey & Sinhaneti, 2013). Based on this information, it raises a question regarding the adequacy of limiting test input to the NES accents in listening proficiency tests.

Bachman and Palmer (1996) and Messick (1996) reminded us of ensuring test validity by maintaining correspondence between language test performance and specific language use in the target domain. In order to ensure that a test is valid and yields appropriate and meaningful scores, the test itself needs to reflect the actual language use in the target domain by simulating test tasks that are parallel to tasks in the real world. Additionally, the test should also bring beneficial washback effects to test takers (Messick, 1996; Brown & Abeywickrama, 2010). They should influence teaching and encourage teachers to offer learners more opportunities to adequately and properly prepare for future careers. In the meantime, it should positively impact learning and drive learners to prepare or develop language skills necessary for functioning in their target situations.

However, this is not the case with existing English proficiency tests used in healthcare professions. These tests are not specifically designed for the context of healthcare. The accents in listening sections of these tests are limited to the inner-circle varieties. Thus, when using these tests to measure listening ability of healthcare personnel working in Thai context, it raises questions regarding test validity, authenticity, washback effects and relevance to communicative needs of test takers. Therefore, in this paper we would like to propose the inclusion of the Asian English accents in a listening test (as a part of an English proficiency test) used for healthcare personnel in Thailand and also to discuss the rationale for incorporating Asian accents in the listening test. Some methodological concerns in the development

of the listening test with various accents and implications will be discussed.

English proficiency tests used in Thai healthcare professions

Several international standardized tests, namely, Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) and Test of English for International Communication (TOEIC) have been used as measures of English proficiency of Thai professionals working in healthcare and other careers (Foley, 2005). As shown on job advertisements available on hospital websites, several renowned hospitals such as Bumrungrad International Hospital, Bangkok Hospital, Samitivej Hospital and BNH Hospital use standardized test scores, particularly TOEIC score, in recruitment to ensure that their staff can communicate in English with international customers effectively (e.g., Educational Testing Service (ETS), 2011; Center for Professional Assessment, 2014; Bangkok Hospital, 2015).

With regard to the accents represented in these tests, only a few of English accents are included. In the TOEFL iBT listening section, apart from North American accents which have been predominantly used, British, New Zealand and Australian accents are added to represent the global English accents (ETS, 2014). These accents can be heard on the mini-lecture part and appear in one lecture per test (ETS, 2005).

Similarly, the IELTS listening test includes the same accents as those in the TOEFL with the aim to reflect a variety of accents in the main host language use (IELTS, 2007). For the redesigned TOEIC listening test, standard American, British, Australian and Canadian accents are included to represent the varieties in international academic and workplace contexts (Powers, 2010). Obviously, these accents are the inner-circle varieties.

Why Asian English accents?

When test designers decide what English accents are to be included in a listening test, two crucial issues should be taken into consideration: context of use or Target Language Use (TLU) domain (Bachman & Palmer, 1996) and test takers' communicative needs.

According to Taylor (2006, 2008), test developers should consider the target context where test takers communicate in English or TLU domain and select test input that shares linguistic features with those in the actual context. We have made our point clear in the previous section that these healthcare professionals have to deal with international patients who communicate in English with their Asian accents. Then, when test developers develop a listening test to assess these healthcare professionals, the test should include linguistic features which correspond to the actual communicative context. In addition, it needs to include test input with the English varieties represented in the context, which directly influences language learning and teaching. It, therefore, helps prepare test takers to function in the target context.

Test developers also need to consider the changing communicative needs of test takers. At present, interlocutors are not limited to NESs. It is obvious that they include speakers from multilingual communities and that interactions often occur between NNESs and NESs (Canagarajah, 2006). This is also the case with Thai healthcare personnel, with their changing communicative needs; they have to communicate and deal with patients using Asian accents in many work situations. Therefore, Asian English accents should be a part of the language input in the listening tests.

There is considerable evidence supporting the view that Asian English accents should be included in the listening tests for healthcare professions. Firstly, the number of Asian patients receiving medical treatment in Thailand has been increasing. According to the Department of International Trade Promotion (2012), from 2010 to 2011, the majority of international patients were Asians. In 2011, there were more than 520,000 Asian

patients (55% of 954,107- the total number of international patients). The largest group were from Japan (182,807 patients or 19%), ASEAN countries (113,522 patients or 11.8%), the Middle East countries (e.g. Bahrain, Jordan, Oman, Qatar, Saudi Arabia) (98,657 patients or 10.3%), the United States (76,277 patients or 8%) and the United Kingdom (62,448 patients or 6.5%). It has also been estimated that the number of patients from Asian regions continues to rise due to Thailand's progressive policies to become Asia's medical hub (Shippen, 2014; Tourism Authority of Thailand Newsroom, 2016). Thus, it is obvious that the number of Asian patients has surpassed that of other regions and that healthcare personnel are more likely to experience English users using Asian accents.

In addition, the findings of Waidarp (2011) and Pandey and Sinhaneti (2013) reveal that healthcare personnel working in Bangkok-based hospitals have faced diverse English accents and difficulties in understanding English speech of NNES patients. They have encountered unfamiliar pronunciation features, for example, using consonant sounds of /l/ instead of /r/ and /s/ instead of /z/ (Pandey & Sinhaneti, 2013). These features are recognized as those used by Asian English users. Jenkins (2009) found a lack of distinction between /l/ and /r/ among Hong Kong and Singaporean English users. A substitution of /s/ for /z/ is also found among Filipino users (Bautista & Gonzalez, 2009). These findings indicate that these healthcare professionals are encountering non-native pronunciation features of Asian speakers in workplace communication.

Furthermore, the integration of ASEAN Economics Community (AEC) and the national plan for medical hub of Asia need to be taken into account. According to the Government Public Relations Department (2013), Shippen (2014) and Thailand Board of Investment (2016), Thailand has entered the AEC, and recently it has achieved its goal as a medical hub of Asia attracting a considerable number of medical tourists from Southeast Asian countries, Japan, China, Taiwan, South Asian countries and the Middle East region. As a consequence of the AEC agreement,

Thailand has also experienced labor mobility of medical practitioners from ASEAN countries (Aldaba & Aldaba, 2013). It can be anticipated that a high percentage of the interlocutors in Thai healthcare contexts will comprise medical practitioners and patients from Southeast Asian countries. For all the aforementioned reasons, therefore, the ability to understand Asian English speakers is essential for healthcare personnel working in Thailand.

Rationale for the inclusion of Asian English accents

Test validity

Based on Taylor's (2006; 2008) principle of accommodating linguistic variations within language tests, to ensure validity of a test, content and linguistic features of test input including test tasks need to be selected based on test purposes and TLU situations. A test needs to represent a wide variety of English used in the target situation where test takers use the language so that this will enable the test to achieve its intended purpose. To serve a specific purpose of measuring healthcare personnel's language ability to communicate and function in the Thai context, an English proficiency test should include various accents, both native and non-native varieties represented in such context. Thus, with the likelihood of encountering NNS accents, especially Asian varieties in healthcare workplaces, the practice of limiting accents to NS varieties seems unreasonable and calls test validity into question.

Moreover, based on Messick's (1989) unified concept of validity (see also Bachman, 1990), content relevance and coverage of test tasks is a content aspect of construct validity, which is used in support of the representativeness of test performance and the meaning of test score. Thus, it is important to ensure that test tasks include relevant content and cover all the abilities required in the target domain. As Asian English accents have not been included in any tasks of listening tests used to measure the listening ability of Thai healthcare professionals working in Asian context, it can be claimed that such tests do not assess the ability

to listen and understand speech of Asian users. This can result in inaccurate representation of the test construct. On this account, when the listening proficiency tests whose input is limited to NS accents are used to predict the ability of Thai healthcare personnel to understand other Englishes spoken in an Asian context, the validity of these tests will be questionable.

Test authenticity

The types of accents commonly used in listening tests have also raised a concern about test authenticity. According to Brown and Abeywickrama (2010), an authentic test should contain language that is as natural as possible and should offer tasks that closely resemble real-world tasks. Indeed, this principle is in accordance with Bachman and Palmer's (1996) notion of test authenticity, stating that an authentic test is one in which the characteristics of its tasks correspond to those of the tasks in the TLU situations.

Like Bachman and Palmer (1996), Messick (1996) addresses the need of test authenticity. Test authenticity can increase the representativeness of the test tasks. It also ensures that an individual's performance on a test will represent his or her performance in the target situation. Thus, in the testing context of healthcare personnel, the tests should require healthcare personnel to listen and understand the accents and speech of Asian English speakers. However, inasmuch as such tests do not incorporate accents of Asian speakers as input, it could be claimed that they fail to closely simulate real-world tasks. For this reason, these tests are viewed as relatively less authentic.

Washback on test takers and listening instruction

A good language test is expected to contribute to beneficial washback or impacts on test takers, other relevant stakeholders and language teaching and learning (Messick, 1996; Bachman & Palmer, 1996; Bailey, 1996; Hughes, 2003). In Messick's (1996) perspective, washback is a form of evidence for consequential aspect of validity. He states that "a good test should influence

teachers and learners to do things... to promote language learning” (p. 240).

In light of beneficial washback of tests on test takers, tests should benefit test takers in preparing them for performing real-world tasks in the TLU situation (e.g., raising awareness of the types of language they will encounter in the target situation and promoting the skills or abilities necessary for performing target tasks) through test preparation or experience in taking the tests.

As for potential washback on language learning and teaching, the tests may drive teachers to revise the goals or directions of language instruction to prepare learners for their future language use (Bachman & Palmer, 1996). For example, teachers may get learners exposed to a variety of English accents they will encounter in the TLU domains. Learners may gain benefits from changes in language instruction such as opportunities to familiarize themselves with various English accents and sociolinguistic sensitivity or awareness of accent variation. However, this may not be the case with general listening tests in which English accents are limited to the inner-circle varieties. Due to their lack of validity and authenticity, such tests have less potential to bring benefits to test takers and listening instruction.

Relevance to test takers' communicative needs

General listening tests seem not to correspond to real communicative needs of test takers. In reality, Thai healthcare personnel have to understand speech of a variety of English users, not that of the NSs only. In their target situation where most interlocutors are NNEs, the knowledge of and the familiarity with NS pronunciation norms and exposure to NS accents are not sufficient to enable them to deal with the complexity of NNS accents and be able to communicate successfully. This can be confirmed by the findings of Waidarp's (2011) and Pandey and Sinhaneti's (2013) studies which reveal that some Thai healthcare personnel have voiced their desire to improve listening skills for more effective communication with international patients from

NNES countries. This fact reflects that the ability to deal with different accents has become a necessity for healthcare personnel, and that the general listening tests are not effectively preparing them for encountering a variety of English accents represented in their workplace.

In conclusion, there are major concerns about the existing listening tests used in healthcare professions in the realms of test validity, authenticity, washback on test takers and listening instruction and relevance to test takers' communicative needs. Thus, there is a necessity for developing a listening test which includes NS and Asian accents as language inputs for this specific assessment context.

Needs analysis and some methodological concerns

In developing a specific English language test with various accents for healthcare professions, needs analysis is recommended as the primary stage of data collection. In order to develop a test which corresponds to real-world tasks and meets specific needs of test users, there are some methodological issues that must be concerned and investigated during the stage of needs analysis. These issues include stakeholders' views and acceptance, selection of accents, effects of NNS accents on measurement qualities, and characteristics of the TLU situation.

Stakeholders' views and acceptance

The views and acceptance of relevant stakeholders towards the inclusion of NNES accents in a listening test are viewed as important dimensions for test development (Harding, 2011a; Abeywickrama, 2013) and needed to be investigated for the following reasons.

The first reason concerns test bias. Test bias refers to “a factor or factors inherent within a test that systematically prevents access to valid estimates of candidates' ability”, according to Dictionary of Language Testing (Davies, Brown, Elder, Hill, Lumley, & McNamara, 1999, p.15). Such a factor (s) is irrelevant to the abilities or construct measured, and thus it can

disadvantage test performance of particular groups of test takers and cause differences in test scores or test performances of test takers (Bachman & Palmer, 1996). Test bias may arise from varied sources, for example, from the use of specialized test content or inconsistent scoring.

In the case of a listening test with various accents, test bias may arise if test developers include particular NNES accents in test materials without introducing them to stakeholders as part of the test construct. This is because the use of particular L2 accents may bring disadvantages such as accent-related difficulty to test takers (Harding, 2011a). Therefore, to prevent potential for test bias and make it equally fair to test takers, test developers need to inform test takers and other stakeholders about the inclusion of NNES accents within the test construct and make a case for the use of NNES varieties based on the stakeholders' acceptance.

In developing listening tests with L2 accents, Harding (2011a) and Abeywickrama (2013) suggest test developers investigate stakeholders' attitudes to find out whether stakeholders agree with the use of L2 accents, rather than developing a test based on their own assumptions. Abeywickrama (2013) cautions that most learners still favor NS accents. This is possibly because in most cases, English accents that language learners have been exposed to through teaching and testing materials are always the inner-circle varieties. Consequently, they may get used to hearing these varieties in listening tests and possibly find NNES varieties less familiar and unacceptable as test input. Thus, stakeholders' views and acceptance towards the use of NNES accents is one area to be researched.

Another reason for investigating stakeholders' views and acceptance is to prevent a mismatch of stakeholders' needs and expectations. A test which is not tailored to the needs and expectations of stakeholders may not contribute to the intended beneficial consequences. For example, due to their limited knowledge about TLU situations, test developers may use test tasks that do not closely resemble the tasks in those situations; as a result, the test cannot prepare test takers for real -world tasks

in their professions. Therefore, test developers should consider what stakeholders really need or expect from the test being developed. With regard to this issue, testing scholars (e.g., Fulcher & Davidson, 2007; Bachman & Palmer, 2010) commonly agree that test developers should consult relevant stakeholders when they develop a test. This can help test users make the most of the tests, which brings about benefits and minimizes undesirable impacts on stakeholders.

Last, it is important to investigate stakeholders' acceptance of the test to ensure opportunity for success in test implementation. If the newly developed test has been accepted by multiple groups of stakeholders, it is very likely that the test will be accepted and implemented as a measure of language abilities in the target testing context (Elder & Harding, 2008).

However, Elder and Harding (2008) point out that the tests that include the inner-circle varieties are more appealing than the locally developed tests with non-native norms. Although strong cases have been made for developing local tests, test stakeholders in the community may be reluctant to implement them in their contexts. An example of this case is the English language test for Indonesian English teachers developed by Brown and Lumley (1998).

To solve this constraint, test developers and language testers should attempt to make test stakeholders recognize the need for embracing linguistic variations into language assessment. One optimal way is to involve stakeholders in the development process and give them opportunities to voice their needs, expectations and views towards the test being developed. Involving stakeholders in the process makes them recognize the value of the test with different varieties of English and its beneficial consequences for them.

Selection of accents

Before choosing suitable accents for a listening test, test developers should investigate the types of accents represented in the target context and ensure that the accents selected for the test

are representative samples (Harding, 2011a). In addition, test input in the listening test needs to reflect linguistic features of language used in the TLU domain (Taylor, 2008). Thus, we would like to suggest implementing a survey of accents. It is an important procedure of test development because it can provide developers with information about the types of accents most prevalent in healthcare contexts. This information helps us form a useful basis for determining which English accents to include in the test.

The effects of NNES accents on measurement qualities

The effects of NNES accents on measurement qualities are another major concern. Major and colleagues (2002) and Harding (2011b) raised concerns over the advantage of accent familiarity and the shared-L1 that they may create possibilities for test bias. Though these studies did not offer sufficient evidence showing the effect of accent familiarity on listening comprehension, these scholars cautioned that the use of particular accents may advantage or disadvantage some groups of test takers.

With respect to the shared-L1 advantage, Harding (2011b) argues that the use of NNES accents in the listening test in which its test takers are from diverse L1 backgrounds may advantage and disadvantage some groups of test takers from particular backgrounds. The test takers whose native language is the same as that of speakers in the test may get advantages from the shared-L1 effect by being facilitated in understanding some phonological features of the speakers easier.

In order to reduce the shared-L1 and familiarity advantage, test developers should carry out a survey of accent to investigate the accents most prevalent in the target context and then identify them as target accents. The identified target accents should be included in the tests for all groups of test takers. Test developers should inform test takers and relevant stakeholders about the use of target accents as the test construct. Then, the shared-L1 effect is not considered a threat to validity (Harding, 2011b). Another solution is to select L2 speakers who have high levels of speech

intelligibility for the tests. In other words, select ones whose English speeches are highly understandable to listeners. By doing so, test developers can minimize linguistic difficulty of input (e.g., certain L2 pronunciation features) that allows some groups of test takers having an advantage of the shared-L1 effect (Harding, 2011b). The last optimal way which Harding (2011b) suggests is selecting the types of accents that all groups of test takers are equally unfamiliar with. However, this is only possible for the specific testing situation where test takers have homogenous backgrounds and the background information of test takers are informed in advance.

Characteristics of the TLU situation

In the development of language tests for specific purposes, Douglas (2000) stresses the need to understand the characteristics of tasks and specific language use in the target situation. To obtain descriptions of the TLU situation, an analysis of a specific language use situation (Douglas, 2000) or a TLU situation analysis (Bachman & Palmer, 1996) needs to be conducted. The types of information to collect are, for example, physical setting, types of interlocutors, communicative events and listening tasks that are relevant to and regularly observed in healthcare workplaces. The information derived from such analysis will serve as a basis for designing test tasks. Douglas (2000) notes that this approach can help ensure that the test tasks are representative of the target tasks and that the test takers' performance on the test will be evidence of their communicative language ability in the target situation. Similarly, Bachman and Palmer (1996) also underscore that when developing a language test for a specific target situation, test developers need to make language test performance correspond to language use in the target situation. More importantly, they need to make sure that a test taker's performance on a test is a representative sample of his/her performance in the TLU situations, which can contribute to making valid inferences about one's language ability.

Therefore, analyzing the characteristics of tasks and language use in the target situation before designing test tasks is needed (Bachman & Palmer, 1996; Douglas 2000). The analysis may be carried out in the forms of needs analysis (Douglas, 2000) in which characteristics of the TLU tasks and situations can be collected through various data collection methods such as questionnaires, analysis of job-related documents, worksite observations, interviews, and consultations with relevant stakeholders.

Conclusion and implications

In the assessment of English proficiency for working in a healthcare context, it is crucially important for a listening test to include diverse Asian English accents represented in the TLU domains of test takers. The call for the inclusion of Asian accents in a listening proficiency test for healthcare professions is for the sake of enhancing test validity and authenticity, promoting beneficial washback to test takers, and making the test match the takers' communicative needs. However, in order to incorporate NNES accents in a listening test, several key issues that test developers need to consider and investigate during the stage of needs analysis include stakeholders' views and acceptance, types of accents, effects of NNS accents on measurement qualities, and characteristics of the TLU situation. By taking these methodological issues into account, the inclusion of NNES accents will enhance test qualities and lead to considerable benefits for test takers and users.

At present, while the inclusion of NNES accents in listening tests still needs to be theoretically supported by more empirical research, we as language teachers may take the initiative to accommodate linguistic variation in our listening instruction for learners' benefits. Teachers may expose learners to a wide variety of accents, both native and non-native varieties through authentic listening materials or activities. This can raise learners' awareness of phonological variation in present-day communication and help

them recognize the need to prepare themselves for encountering this complexity of language use in their future careers.

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References

- Abeywickrama, P. (2013). Why not non-native varieties of English as listening comprehension test input? *RELC Journal*, 44(1), 59-74.
- AEC: Thai private hospitals are getting ready for ASEAN patients. (2014, July 23). Ch7News. Retrieved from <http://news.ch7.com/detail/79101/>
- Aldaba, F., & Aldaba, R. (2013). *ASEAN economic community 2015: Capacity-building imperatives for services liberalization*. (Discussion paper series 2013-06). Retrieved from <http://dirp3.pids.gov.ph/ris/dps/pidsdps1306.pdf>
- ASEAN network: Heading to international medical hub. (2014, September, 24). DailyNews. Retrieved from <http://www.dailynews.co.th/article/268802>
- Bachman, L. F. (1990). *Fundamental considerations in language testing*. Oxford: Oxford University Press.

- Bachman, L. F., & Palmer, A. S. (1996). *Language testing in practice: Designing and developing useful language tests*. Oxford: Oxford University Press.
- Bachman, L. F., & Palmer, A. S. (2010). *Language assessment in practice: Developing language assessments and justifying their use in the real world*. Oxford: Oxford University Press.
- Bailey, K. M. (1996). Working for washback: A review of the washback concept in language testing. *Language Testing*, 13(2), 257-279.
- Bangkok Hospital (2015). *Job opportunities*. Retrieved from <https://www.bangkokhospital.com/index.php/en/corporate>
- Bautista, M. L.S., & Gonzalez, A. B. (2009). Southeast Asian Englishes. In B. Kachru, Y. Kachru, & C.L. Nelson (Eds.), *The handbook of world Englishes* (pp.130-144). Oxford: Wiley-Blackwell.
- Brown, J. D. (2014). The future of world Englishes in language testing. *Language Assessment Quarterly*, 11(1), 5-26.
- Brown, A., & Lumley, T. (1998). Linguistic and cultural norms in language testing: A case study. *Melbourne Papers in Language Testing*, 7(1), 80-96.
- Brown, H.D., & Abeywickrama, P. (2010). *Language assessment: principles and classroom practice*. New York: Pearson.
- Canagarajah, S. (2006). Changing communicative needs, revised assessment objectives: Testing English as an international language. *Language Assessment Quarterly*, 3(3), 229-242.
- Center for Professional Assessment. (2014, February 07). *Institutional test administration policies and procedures*. Retrieved from <http://cpathailand.co.th/?article=110>
- Davies, A., Brown, A., Elder C., Hill, K., Lumley, T., & McNamara, T. (1999). *Dictionary of language testing*. *Studies in Language Testing*, 7, Cambridge: Cambridge University Press.
- Department of International Trade Promotion, Ministry of Commerce. (2012). *The number of foreign patients in Thai hospitals*. Retrieved from [www.sme.go.th/SiteCollection Documents/สถาและบรการสุขภาพ%20_final.pdf](http://www.sme.go.th/SiteCollectionDocuments/สถาและบรการสุขภาพ%20_final.pdf)

- Douglas, D. (2000). *Assessing languages for specific purposes*. Cambridge: Cambridge University Press.
- Educational Testing Service. (2005). *TOEFL iBT tips: How to prepare for the next generation TOEFL test and communicate with confidence*. Retrieved from http://www.ets.org.pl/ftp/ets/TOEFL_Tips.pdf
- Educational Testing Service. (2011). *TOEIC test success story: Bumrungrad international hospital, Thailand*. Retrieved from https://www.ets.org/s/toEIC/pdf/bumrungrad_testimonial.pdf
- Educational Testing Service. (2014). *New native-speaker English accents added to the TOEFL iBT test*. Retrieved from http://www.ets.org/toefl/important_update/english_accents_added
- Elder, C., & Harding, L. (2008). Language testing and English as an international language: Constraints and contributions. *Australian Review of Applied Linguistics*, 31(3), 34.1-34.11.
- Foley, J. A. (2005). English ...in Thailand. *RELC Journal*, 36(2), 223-234.
- Fulcher, G., & Davidson, F. (2007). *Language testing and assessment: An advanced resource book*. London & New York: Routledge.
- Harding, L. (2011a). Accent and listening assessment. *Language Testing and Evaluation*, 21. Frankfurt: Peter Lang.
- Harding, L. (2011b). Accent, listening assessment and the potential for a shared-L1 advantage: A DIF perspective. *Language Testing*, 29(2), 163-180.
- Hughes, A. (2003). *Testing for language teachers*. Cambridge: Cambridge University Press.
- International English Language Testing System. (2007). *IELTS handbook*. Retrieved from http://www.ielts.org/pdf/IELTS_Handbook.pdf
- Jenkins, J. (2006). The spread of EIL: A testing time for testers. *ELT Journal*, 60(1), 42-50.
- Jenkins, J. (2009). *World Englishes: A resource book for students*. New York: Routledge.
- Major, R.C., Fitzmaurice, S.F., Bunta, F., & Balasubramanian, C. (2002). The effects of

- nonnative accents on listening comprehension: Implications for ESL assessment. *TESOL Quarterly*, 36 (2), 173-190.
- Messick, S. (1989). Validity. In R. L. Linn (Ed.), *Educational measurement* (pp. 13-103). New York: Macmillan.
- Messick, S. (1996). Validity and washback in language testing. *Language Testing*, 13, 241-256.
- NaRanong, A., & NaRanong, V. (2011). The effects of medical tourism: Thailand's experience. *Bulletin of the World Health Organization*, 89(5), 336-344. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/21556301>
- Pandey, I., & Sinhaneti, K. (2013). A study of required English skills for healthcare personnel. *Journal of Education and Vocational Research*, 4(6), 184-192.
- Powers, D. E. (2010). *Validity: What does it mean for the TOEIC tests? (Research report)*. Retrieved from <http://www.ets.org/Media/Research/pdf/TC-10-01.pdf>
- Shippen, M. (2014). The land of smiles and surgery. *Medical Tourism Review*, 2, 6-9. Retrieved from <http://www.mtronline.co.uk/pdf/MTR-issue-2.pdf>.
- Taylor, L. (2006). The changing landscape of English: Implications for language assessment. *ELT Journal*, 60(1), 51-59.
- Taylor, L. (2008). Setting language standards for teaching and assessment: a matter of principle, politics or prejudice? In L. Taylor & C. J. Weir (Eds.), *Language Testing Matters: Investigating the wider social and educational impact of assessment: Proceedings of the ALTE Cambridge Conference* (pp.139-157), *Studies in Language Testing* 31. Cambridge: Cambridge University Press.
- Thailand Board of Investment. (2016). *Medical hub brochure 2016*. Retrieved from http://www.boi.go.th/upload/content/BOI-brochure%202016-medical-20160524_24249.pdf
- The Government Public Relations Department. (2013, February 12). *Thailand on global stage: Ministry of public health prepares for the ASEAN economic community*. Retrieved from http://thailand.prd.go.th/ewt_w3c/ewt_news.php?nid=663&filename=index

Tourism Authority of Thailand Newsroom. (2016, February 10).
Media releases: Thailand strengthens trade and tourism relations with Iran and Oman through official visits.

Retrieved from <http://www.tatnews.org/thailand-strengthens-trade-and-tourism-relations-with-iran-and-oman-through-official-visits/>

Waidarp, W. (2011). *Demand of English skills for Thai nurses working in an international healthcare organization: A study in a private hospital in the Silom area. (Unpublished master's thesis)*. Language Institute, Thammasat University.