Study of English Training Model Based on Backward Design Technique:
IAESTE Thailand as a Case study

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Abstract
The university students need to prepare themselves to be ready as the competent workforce for industry. On-the-job plays an important role in a student's development as it applies the theoretical learning of a student to day-to-day practices in the industry. To enhance students' skills to be stronger and ready as competent workforce for borderless world, communication especially languages is important and it is undeniable that students' development has to do during their stay in university. The International Association for Exchange of Students for Technical Experience (IAESTE) offers international internship which covers 90 countries around the world. English language skills present the most critical barrier for Thai students who would like to join IAESTE's on-the-job training program for technical experience over the last 40 years. Therefore, this research was aimed to study the relationship between the personal data and English testing scores of the student applicants who had joined IAESTE Thailand in 2009 – 2011 and to synthesize and find out an English training model suitable for IAESTE Thailand 's student applicants by using backward design technique. Based on 1,477 student applicants in 2009 - 2011 it was found out that most undergraduate students studying engineering, science and technology who got low GPA also failed in English Competency Test. The English teaching experts both Thais and foreigners rated teaching listening skill most important and then speaking skill, reading skill and writing skill but for teaching vocabulary and grammar structures was rated least important. Hence, 36 – 72 hours training model was purposed to prepare the students which include language, multicultural and adaptability competency.

Keywords: Backward Design Technique, Student Center, On-the-Job training

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Introduction

Language is a cognitive skill which includes productive skills of writing and speaking and receptive skills of reading and writing (Wongsothorn, Hiranburana, and Chinnawongs,2002). English is taught as a second language in Thailand. Thai students are required to learn English with a few hours a week starting from a primary school to a university. It is a compulsory subject in all levels of education. Not only the limitation of English study hours due to the curriculum restriction but also the teaching methodology has been the main problem resulting in Thai students' interest to learn English. Most of Thai students do not prefer to learn English because they find the subject matter boring and the four skills are quite hard for them whose mother tongue is Thai. Although people communicate on a daily basis, they do not understand that causes them not to be able to reach their communication goals. (Hybels & Weaver,1995) When people from different countries interact in order to reach the goal of understanding each other, there are problems found within the group due to variations in the language used by them. Teaching methods are not attractive or engaging for students (Bateman, Hois, Ross, & Tenbrink, 2010). Most of the English teachers in Thailand still use grammar and rote learning methods with their Thai translation while teaching. Besides, students do not have the opportunity to use English in their daily lives, lack of exposure about English language and they do not have any motivation to use English . Moreover, technology support for language learning has never been sufficiently supported such as ITC as well as language laboratories particularly for schools in rural areas or remote areas as well as universities throughout the country. As a result, Thai students' English skills are still very weak (Methitham & Chamcharatsri, 2011) compared with the pother countries in the South East Asian Region. It has become a critical problem for Thai students of Higher Education who would like to apply for the practical training placements under the International Association for the Exchange of Students for Technical Experience: IAESTE A.s.b.l. which consists of 90 member countries. It is an association of national committees representing academic, industrial and student interests. It serves 4000 students, 3000 employers and 100 academic institutions through career focused professional internships abroad, social and intercultural reception programmes and international networking.

The International Association for the Exchange of Students for Technical Experience: IAESTE A.s.b.l was founded in January 1948 at Imperial College, London, on the initiative of the imperial College Vacation Work Committee. It is an Association of National Committee representing Academic, Industrial and Student interests. Each National Office is responsible for administration of the exchange in its own country. IAESTE is a non-political, independent, non-governmental Organization (UNESCO) and maintains consultative relationships with the UN Economic and Social Council (ECOSOC), the United Nation Industrial Development Organization UNIDO) and the International Labor Office (ILO) (IAESTE, 2012). The main objectives of IAESTE are to: provide students in higher education with technical experience relevant to their studies; to offer employers well-qualified and motivated trainees and to be a source of cultural enrichment for trainees and their host communities (IAESTE Annual Review,2011) Thus, the students who are interested to participate in this organization must have good English skills so as to be able to communicate with their foreign employers and work successfully on the job offered during the internship. Each year, the offers of training are exchange with other Member and Co-operating Institution

select qualified students to meet Employers' requirements as outlined on the training offer. Details of the selected candidates are sent to the Companies for approval. Participation in the IAESTE exchange is open to bona fide students attending courses at Universities, Institutes of Technology and similar Institutions of Higher to Education. (IAESTE, 2012)

IAESTE Thailand is one of IAESTE members who manages exchange activities for the students' on-the-job training programs for technical experience between IAESTE members and co-operating institutions comprised of 90 members and co-operating institution from 75 countries and 15 Non-Member countries. English language skills present the most critical barrier for Thai students who would like to join IAESTE's on-the-job training program for technical experience over the last 40 years. Most of these students are lacking a powerful English training program, lack of professional English trainer, and lack of capable counselors to guide them improve their English skills to a level that enables them to compete in the IAESTE standard testing. More than 60% of Thai students who apply fail to pass this test each year. It would be to great benefit for next year's IAESTE Thailand applicants, if there were a variety of English training model available to improve their English skills levels and ready them for IAESTE Thailand's recruitment processes. Therefore, the aim of this research was 1) to the propose the most appropriate English training models for IAESTE Thailand based on student center and backward design technique, 2) to study the relationship between the personal data and English testing scores of the student applicants who had joined IAESTE Thailand since 2009-2011 and 3) To synthesize and find out an English training model suitable for IAESTE Thailand's student applicants. Accordingly, based on the variety of student's English skills, IAESTE Thailand is expected to train them to be able to attain its standard, before they can participate in the overseas exchange program. This research will be helpful for IAESTE Thailand's performance, career path development of an English training model based on student center and backward design technique.

Research Questions:

1) Is there any relationship between Thai students' personal data and their testing scores?

2) Is there the most appropriate English training model for Thai students who would like to participate in IAESTE's on-the-job training program for technique experience different from general English training courses offered by universities ?

Hypotheses

Focused on Backward Design Technique which are helpful for a modern curriculum design could help the research develop two hypotheses:

1) Is there some relationship between Thai students' personal data and their testing scores ?

2) Is the most appropriate English training model for IAESTE Thailand's applicants different from the students' general English courses?

Literature Review

This chapter provides a synthesis of the theoretical and empirical literature used in the development of the research model and hypotheses. In the first section, the theoretical background is given on student center. The second section examines backward design technique. The third section examines English teaching in Thailand's context and the fourth section reviews literature, the impacts of student center and backward design technique on English teaching's performance outcomes. A proposed conceptual model and hypotheses are presented in the fifth section.

Student Center Teaching

The term, "student center or learn-centered" describes a concept and a practice in which student and professors learn from one another. It proposes a global shift away from instruction that is fundamentally teacher-centered, at times glibly termed "sage on the stage," focusing instead on learning outcomes. It's not intended to diminish the importance of the instruction side of the classroom experience. Learner-centered teachers articulate what student are excepted to learn, design educational experiences to advance their learning, and provide opportunities for them to demonstrate their success in achieving those expectations.

A learner-centered environment grows out of curricular decisions and in-class strategies which encourage students' interaction with the content, with one another, the teacher and the learning process. It encourages students' reflection, dialogue and engagement, and requires a reliable assessment of their content mastery (Rahimi, Ghodrat & Reza, 2012). Conventional wisdom has been that if a faculty teaches well and offers insightful, clear, rigorous, challenging, and even enjoyable lecture, students will learn. Learner-centered pedagogy questions this assumption given differences in how students learn. The emergence of learner-centered instruction arises from the quest to have all students achieve more success in their educational enterprise. Sanner & Wilson (2008) suggests the student's demands to learn are a key success factors for student-centered teaching. Halle, T., et al (2002) stated some teachers may think, their students are not always motivated to maximize their learning. The fact the students bring other motivations to bear on their choice of educational environment presents other complications for a pedagogic strategy based on their preferences. To be effective, a change toward learner-centered teaching may require a re-centering of assessment practices to include more different evaluations of the learning experience.

Alexander and Murphy (2000) highlighted five areas for learner-centered design principles. These areas include knowledge base, motivation and affect, strategic processing or executive control, development and individual differences, and situation for developing an English training model for IAESTE Thailand.

Backward Design Technique

Wiggins and McTighe (2005) offer an effective framework for designing instruction through "Backward Design." The design process seems "backward" in that it starts from the opposite end of the planning process typically used to plan introduction – educator traditionally start by thinking about how to teach content (Schmid,2008). Backward Design, in contrast, leaves teaching activities until the end, starting with the

learning result expected. Backward Design process is sued here and proceeds in the following three phases:

STAGE I: Identify Desired Result

First, learning goals must be established. What should students know, understand and be able to do? How is content prioritized and narrowed down to reflect priorities of the standards and learning expectations (GLCE)? Wiggins and McTighe (2005) provide a useful process for establishing curricular priorities. They suggest three questions that facilitates the design of learning goals and progressively "focus-in" on the most valuable content:
1. What should participants hear, read, view, explore, or otherwise encounter? This knowledge is "worth being familiar with" ?

2.What knowledge and skills should participants master? Sharpen choices by considering what is "important to know and do" for students. What facts, concepts, and principles should they know? What process, strategies, and methods should they learn to use?

3. What big ideas and important understanding should participants retain? These choices are the "enduring understandings" that students should remember.

STAGE II: Determine Acceptable Evidence

In phase two of backward, educators decide what is acceptable evidence to help gauge students on how to meet the lesson goals? How will one know if one know if students are "getting it"? When planning how to collect this evidence, consider a wide range of assessment methods and directly align assessment to the learning to be gained. Assessment must match learning goals.

STAGE III: Plan Learning Experience and Instruction

Finally, after deciding what result are desired and determining the evidence for achievement of those result, start planning how to teach to reach those outcomes. That is, move to designing instructional strategies and students' learning activities. Devise active and collaborative exercises that encourage students to grapple with new concepts and significant understandings.

Backward design is one other key principle used to develop an English training model for IAESTE Thailand in this research. This technique is appropriate for IAESTE Thailand context, since all applicants are from different universities, study different subject majors and most of them are quite weak in English skills. A good English training model for them must be developed based on student center and backward design technique to satisfy their need to learn and improve their personal English skills level.

Methodology

This research employed a mixed method between documentary research and survey research. This is appropriate for describing the distribution of characteristics or

attributes of interest, explaining a phenomenon of English training needs through investigations of relationships among variables (Rieckmann, 2012); such as applicants' personal data their English skill, and explaining phenomena that have not been studied (Douglas, 1976) necessary for improvement. The unit of analysis of individual level was implemented with all IAESTE Thailand's applicants since 2009 – 2011(1477 participants), descriptive statistic and nonparametric statistic will be used for hypothesis testing. Their personal data will be tested correlations with their tested scores of English skills by IAESTE Thailand. To design training model, 20 experts surveyed by using the backward design technique. These experts were composed of groups of IAESTE Thailand stakeholders; 5 Thai English teachers; 5 non-Thai English teachers, 5 IAESTE Thailand's staff, and 5 Students who had deep experiences with IAESTE Thailand

Data Analysis

Data analysis consisted principally of two parts: First, testing the relation between personal data English skill levels by descriptive static and chi-square test, Second, data from the backward design technique survey by content analysis, mean, and percentage. The research finding is presented into 3 parts as follows: Part I: Qualitative statistic test results, Part II: Backward survey and Part III: English teaching model for IAESTE Thailand formulation.

Table 1 Descriptive statistic of personal data

Personal Data		Frequency	Percent
Sex	Male	725	49.1
	Female	752	50.9
Degree	Bachelor	1328	89.9
	Master	141	9.5
	Doctor	8	.5
University	KMUTNB	315	21.3
	Other government universities	1046	70.8
	Other private universities	116	7.9
Major	Engineering	872	59.0
	Science & Technology	253	17.1
	Architecture	29	2.0
	Art science	146	9.9
	Business Administration	25	1.7
	Others	152	10.3
GPA	Lower than 1.5	374	25.3
	1.51 – 2.50	516	34.9
	2.51 – 3.50	418	28.3
	3.51 – 4.0	169	11.4
English Test Part1	Pass	566	38.3
	Fail	911	61.7
English Test Part2	Pass	424	28.7
	Fail	1053	71.3

Personal Data		Frequency	Percent
Interview	Pass	616	41.7
	Fail	859	58.2
	Missing Value	2	.1
Succession	Pass	205	13.9
	Fail	1272	86.1
Attending Year	2009	570	38.6
	2010	484	32.8
	2011	423	28.6
	Total	**1477**	**100.0**

Most of them are female 50.9%, studying Bachelor degree 89.9%, studying in other government universities 70.8%, largest number of a major is Engineering 59.0%, GPA 1.51-2.50 about 34.9%, fail in IAESTE Thailand's test part one 61.7%, fail in IAESTE Thailand's test part two 71.3%, fail on interview test 58.2%, un-successful for student exchange 86.1%, and with most of them applying in the year of 2009. Then chi-square test was performed and found that there were significant relationships between sex and test 1 = 0.08, University and Test 1 = 0.26, University and Test 2 = 0.19, University and Test 2= Major and Test 1 = 0.14, Major and Year of Application= 0.21, GPA and Test 1= 0.17, GPA and Test 2 = 0.17, GPA and Interview = 0.10, and GPA and Year of Application = 0.15, which was quite a low relationship. There were 16 pairs of personal data which didn't have any significant relationship. They were Sex and Test 2, Sex and Interview, Sex and Success, Sex and Year of apply, Degree and Test 1, Degree and Test 1, Degree and Test 2, Degree and Interview, Degree and Success, Degree and Year, University and Interview, University and Year of apply, Major and Interview, Major and Success, GPA and Success.

Backward design survey was sent to 20 experts regarding English skills needed for students including listening, speaking, reading, writing, vocabulary and grammar. It was founded that The teaching aids used by a teacher when teaching English course of 36-72 hours should include basic communication skills for living abroad, and any kind of games that encourage creativity and critical thought. Apart from an English training program before their overseas internship, other training that IAESTE Thailand's applicants should be given is an awareness of the empirically verified stages of culture shock is helpful in preparing students for living in a foreign country. Study Thai culture and host country in English version, preparation for abroad show time. Human relations for living abroad. Self-disciplining trains for professional development and training on working in multicultural setting. Each lesson should incorporate some communication practice. Students need to be prepared for intensive English only situations, thus and English only environment is deal. The development of English training model; a practical training should be developed in cooperation with a foreign teacher. Computer programs are particularly helpful in assisting English language acquisition.

English teaching model for IAESTE Thailand formulation using backward design technique; Stage 1- Desired results: Students should be training to be competent to listen, speak, and read English language with fluency, should demonstrate adequate vocabulary in their major, represent themselves and be able to use their English language skills to set up a proper cultural exchange show, and be competent in

cultural adaptation. Stage 2 – Assessment Evidence: Performance tasks should be measured from; 1) Students can listen, speak, and read English fluently after finishing a 72-hour training course from IAESTE; 2) Students demonstrate their use of at least 1,500 vocabulary words after a 72-hour training course from IAESTE; 3) Students can use their skills to set up proper cultural exchange show. Stage 3 – Learning Plan; Learning Activities; 1) IAESTE English training camp, 2) English environment only activities; 3) Small group mentoring.

Conclusion and Discussions

Most of the applicants were undergraduate students from different universities taking engineering, science and technology with the GPA of 1.51 – 2.50. Their English skill were so poor that IAESTE Thailand rejected them. Most experts rated listening skill most important. The teacher should be aware of the distinct phonetic difference between Thai and English. Teacher aids such as VDO clip, movies, TV, radio or songs, should be used to assist the students' English language acquisition. Speaking skill was secondly rated important. Therefore, a qualified teacher should have TEFL, TESOL, and ECLTA, mother tongue English university degree and experience in teaching EFL. The classroom circumstance should be arranged for facilitating Thai students to engage in conversation activities. Thai translation and dictionaries must be avoided. The reading skill was rated also most important. Teaching students to have effective reading skill dictionaries should be avoided. The focus must be put on reading strategies practices. Most experts also rated writing skill most important too. A qualified teacher should have a foundation of grammatical knowledge and punctuation skill, experience in academic writing, degree in English from a western institution , linguistic ESL, TEFL, TESOL, EFL and literacy degree.

Teaching vocabulary and grammar structures were rated least important. Students should have a comfortable place to sit to work in groups and pains. Teachers should understand the grammatical differences between Thai and English, pay attention to students' feedbacks and comfortable to adjust teaching activities to enable students to enjoy their grammar study. The teaching aids a teacher should use when teaching an English course 36 – 72 hours are basic communication skills for living abroad and any kind of games that can encourage creative and critical thought. Students should also be given awareness of the empirically verified stages of culture shock. Adopting the backward design was useful to identify an endure understanding the need of English skills to enhance Thai students to be more efficient in English communication in order to be able to be a competent workforce for borderless world (Di Masi & Milani,2016).

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