

Students' profiles and language tasks that best predict students' language ability: some recommendations and caveats for gifted language programs

Jirada Wudthayagorn^{1*} and Siridej Sujiva²

¹*Faculty of Liberal Arts, Maejo University, Chiang Mai, Thailand*

²*Faculty of Education, Chulalongkorn University, Bangkok, Thailand*

Abstract

This research examined the relationships between students' profiles and their abilities to perform language tasks. Nine hundred and eight ninth graders performed different language tasks including listening tasks, word analogy, grammar tasks, reading comprehension tasks, and new word invention tasks. Their profiles included gender, years of English study, and grade point averages. The data were analyzed by using descriptive statistics and Pearson Product Moment. The results indicated that boys outperformed girls in doing the new word invention task; the years of English study and the grade point averages were connected to the ability to complete the grammar, reading comprehension, and new word invention tasks. At the end some recommendations and caveats for indicating potential students to participate in gifted language programs are presented.

Keywords: students' profiles; language tasks; language ability; gifted language programs

บทคัดย่อ

งานวิจัยเรื่องนี้มีวัตถุประสงค์เพื่อศึกษาความสัมพันธ์ระหว่างข้อมูลส่วนตัวของนักเรียนกับความสามารถในการทำแบบทดสอบทางภาษา นักเรียนชั้นมัธยมศึกษาชั้นปีที่ 3 จำนวน 908 คน ทำแบบทดสอบทางภาษาที่ประกอบด้วยการฟัง การวิเคราะห์ความสัมพันธ์ของคู่คำ ไวยากรณ์ การอ่านเพื่อความเข้าใจ และการสร้างคำใหม่ ข้อมูลส่วนตัวของนักเรียนประกอบด้วยเพศ จำนวนปีที่เรียนภาษาอังกฤษและเกรดเฉลี่ยสะสม วิเคราะห์ข้อมูลโดยใช้สถิติพรรณนาและสูตรเพียร์สัน

* Corresponding author

E-mail address: jirada@mju.ac.th

โพรเดคต์โน้ม-men ผลการวิจัยพบว่าなくเรียนชายสามารถสร้างคำใหม่ได้มากและดีกว่า девушкเรียนหญิงจำนวนปีที่เรียนภาษาอังกฤษและเกรดเฉลี่ยสะสมมีความสัมพันธ์กับความสามารถในการทำแบบทดสอบภาษากรรฟ์ การอ่านเพื่อความเข้าใจและการสร้างคำใหม่ ผู้จัยได้อภิปรายและเสนอแนวทางในการประยุกต์ใช้ข้อค้นพบที่ได้จากการวิจัยเพื่อคัดเลือกนักเรียนที่มีศักยภาพเข้าเรียนในโครงการสำหรับผู้มีความสามารถพิเศษทางภาษา

Reasons for the study

Since 2002, 12 years of free basic education has been made available to students in Thailand throughout the country for the first time which covers 6 years of primary, 3 years of lower secondary, and 3 years of upper secondary education. In addition, 9 years of primary and lower secondary levels are compulsory. The Office of the Education Council (2006) showed that in 2005-2006 there were 5.8 million primary students and 2.6 million lower secondary students. In other words, by combining these two levels of education, there were 8.4 million students in compulsory education.

Interestingly enough, the statistics indicate that 3-5% of the population is gifted (e.g., Colangelo & Davis, 2003; Gallagher & Gallagher, 1994; Marland, 1972; Samuel & Gallagher, 1986). Based on this statistic, in the year 2005-2006 there should be 250,000 - 400,000 students in compulsory education who are gifted in some ways, for instance, in mathematics, sciences, sports, music, or languages. This number is significant. Following the 1999 National Education Act, special education for gifted and talented students has been offered. The Office of the Education Council (2006, p. 36) clearly states that “suitable curricula, appropriate means to accelerate growth and development, a dynamic and vibrant environment, and well-trained mentors are approaches being implemented to nurture gifted children talented in science and mathematics, language, sports, music, computing, visual and performing arts, and many other fields.”

Education for gifted and talented students is essential. The Office of the National Education Commission has piloted gifted programs and organized specific domains or aptitudes such as in Thai and English languages for secondary students (see, for example, Hiranyaburana and others 2001; Pibulchol, 2003, and Wiriyachitra, 2007). Several secondary

schools participated in the gifted programs (see www.thaigifted.org). To run these gifted programs, multiple methods are employed to select the students, for example, teacher and parent nomination, students' grades, a survey of students' interests, and several tests. Some of the tests used to identify the students are an English proficiency test which is equivalent to TOEFL and other commercial standardized tests such as the Oxford Placement Test. However, these tests are not really relevant to the language gifted programs. TOEFL aims to screen adults for enrollment in graduate schools in English-speaking countries like the US, UK, Australia, etc. Other commercial standardized tests have their own objectives, for example, to place new students into the right groups – gifted groups.

Therefore, these tests are not appropriate for the identification of secondary students as far as gifted education is concerned. In addition, we have minimum empirical data about the relationships between Thai students' profiles, that is, gender, years of English study, and their grade point averages (GPAs) and their abilities to perform the language tasks.

This research project attempts to fill in the gaps by examining the relationships between the students' profiles and their abilities to perform the language tasks. It will help us indicate the potential students efficiently and effectively. The results of this research-based study will be purposeful and meaningful because we, as language educators and language teachers, are able to design appropriate language tasks that can best identify potential Thai students to participate in gifted languages programs.

Objectives of the study

This study aims to examine the relationships between the students' profiles and their abilities to perform the language tasks.

Definitions of terms

Students are those who are going to finish grade nine in 2007.

Students' profiles include gender, years of English study, and grade point averages (GPAs) given by teachers.

Language tasks comprise five tasks: (1) listening tasks, (2) word

analogy, (3) grammar tasks, (4) reading comprehension tasks, and (5) new word invention tasks.

Language ability refers to the scores from the five tasks: (1) listening ability, (2) word analogy, (3) grammar, (4) reading comprehension, and (5) new word invention.

Limitation of this study

As the related literature has shown (e.g., Dörnyei, 2005; Ellis, 1994; Skehan, 1991), there are several factors that play a vital role in second language learning, for example, aptitude, age, gender, years of study, and attitude and motivation. This study focused on three factors—gender, years of English study, and grade point averages (GPAs)—because this information is already available to language teachers and administrators. But less is known about their relationship to language learning. Thus, the researchers selected these three factors as a first step to investigate a basic understanding of these factors in relation to language learning.

Literature review

This section focuses on two points: (1) the students' profiles and their language abilities, and (2) some language tests that predict students' likelihood of success and ease of learning.

(1) The students' profiles and their language abilities

The students' profiles in this study include gender, years of English study, and their grade point averages (GPAs).

Firstly, it's generally believed that girls do better than boys in terms of language study, but the evidence is inconclusive in the light of numerous research studies (Ellis, 1994). However, Nyikos (2008) has recently stated that the assistance of technology helps us to understand better the differences between the male and female brain and numerous quantitative studies demonstrate that boys and girls behave in different ways in relation to academic matters. Tyre (2005, p.59) confirms that girls have “language centers” that mature earlier than that of boys. Nyikos (2008) explains that because of gender-specific socialization and the expectations of adults, which

play an important role in shaping gender roles, female brains may be better stimulated. Therefore, girls seem to be more successful in language learning than boys. In sum, “gender is a significant, defining dimension of our humanity and as such has at least some influence on the way we learn” (Nyikos, 2008, p. 75).

Secondly, those students who have participated in a foreign language program longer period of time tend to have a better attitude and outperform those who have just started to learn the foreign language (Donato, Tucker, Wudthayagorn, & Igarashi, 2000). This factor is in fact related to an “early start” notion. That is, those who started early and are able to continue studying in the foreign language program for longer tend to be more successful. However, there are several counter examples. Burstall, Jamieson, Cohen, and Hargreaves (1974) observed that the benefits of early instruction for language development are short-lived. Muñoz (2006) summarizes that an early start and native-like achievement are not related. In addition, Neufeld (1978) found that adult learners could also produce native-like pronunciation. Munoz (2006, cited Krashen, Long, and Scarella, 1979) concluded that “older learners have a superior learning rate, particularly in the first stages of the acquisition of morphosyntactic aspects, while younger learners are slower at first but eventually show a higher level of ultimate attainment.” (p. 2).

The last factor in the students’ profiles is their grade point averages (GPAs). The students who are good learners of any subject can be seen by their grade point averages given by their teachers. Good learners tend to possess multiple traits, for example, positive attitude and motivation, appropriate learning strategies, persistence, and clear goal settings (Griffiths, 2008). Thus, a strong connection between GPAs and the ability to learn can be found. The GPAs are often used as one indicator to predict students’ success in learning for the future.

These three factors have been studied in foreign contexts. Less is known in the Thai context. From our personal view, these three factors can be investigated easily and can be used effectively when making a decision about identifying potential students to join a particular kind of program.

(2) Some language tests that predict students' likelihood of success and ease of learning.

There are some tests used to predict a student's likelihood of success and ease in learning languages. In the US, two well-known tests are the Modern Language Aptitude Test (MLAT) (Carroll & Sapon, 1958) and the Pimsleur Language Aptitude Battery (PLAB) (Pimsleur, Reed & Stansfield, 2004).

The MLAT has initially been used for adults in government language programs and by missionaries, but it is also appropriate for ninth and twelfth grades as well as college/university students. However, Ranta (2008) observes that after the emergence of communicative language teaching, the MLAT has become unpopular because of its association with the audiolingual method. The other test is the PLAB which is intended to be used for students from grade 7 to grade 12.

The uses of the MLAT are for the selection, placement and as a diagnostic of learning ability. Quite similar to the MLAT, the uses of the PLAB are for program placement, language assessment and planning, and as a diagnostic of learning abilities.

Grigoreng, Sternberg, and Erhman (2000) propose a new test, the CANAL-F (Cognitive Ability for Novelty in Acquisition of Language-Foreign). This test stimulates language learning using an artificial language. Test takers are asked to demonstrate their ability to acquire vocabulary, comprehend extended text, extract grammatical rules and make semantic inferences. Grigoreng, Sternberg, and Erhman (2000) found that there are correlations among CANAL-F test scores, MLAT test scores, and instructor ratings of the students' communication and writing skills, knowledge of vocabulary, overall knowledge and ability to master the target language.

Thus, the purposes of these tests may not be relevant to gifted programs in the Thai context. The question is what are the language tasks that can prove to be useful to identify potential Thai students if they want to participate in the gifted language programs.

Method of the study

Population and Sample

In the academic year 2007, there were about 870,000 ninth grade students (Ministry of Education, 2007). The Yamane formula (Yamane, 1967) was used to determine a sample size for a $\pm 3\%$ precision level, obtaining 908 ninth grade students. After that, a stratified random sampling technique was employed. As such, six public high schools (two schools in the central region, three schools in the northern region, and one in the southern region) participated in this study.

The Instrument

There were six parts to the instrument, that is, (1) students' profiles which include gender, years of English study, and grade point averages (GPAs), (2) listening tasks, (3) word analogy tasks, (4) grammar tasks, (5) reading comprehension tasks, and (6) new word invention tasks. This instrument was designed for the students to finish within 50 minutes.

For the listening task, the students were asked to listen to 20 sentences (ten in Thai and another ten in English) and circle the correct word that corresponded to what they heard. For example, the students heard, from the tape recorder, "I want to go to Austria." The students then selected the correct word in the given sentence "I want to go to *Austria/Australia*." Thus, this task aimed to measure if they were able to differentiate between minimal pairs in context.

The word analogy part contained ten items. The students analyzed each given pair of words. They analyzed the relationship between the two words. Then, from four multiple choices they chose the correct pair of words. This task, thus measured their analytical thinking.

For the grammar task, the students were given different sets of data from a variety of languages such as English, Greek, and Arabic. The students analyzed these data and summarized the grammar rules by answering short answers in the space provided. There were 20 questions in this section. This task aimed to measure their ability to summarize the grammar rules from the given data.

For the reading comprehension task, the students read one passage containing 250 words. The students answered seven questions by selecting appropriate answers from four multiple choices. The questions asked the students to find the main idea, related details, words in context, reference terms, and the tone of the author. This task focused on their ability to comprehend the reading passage.

The total score of this test was 57. Additionally, the students had to do the new word invention task by creating as many new words as possible.

The word “ESTABLISHMENT” was given in order to examine the students’ creativity. The students are asked to invent as many new words as possible from the letters in the word “ESTABLISHMENT.” The new words were counted and the researchers commented on the students’ creativity.

The quality of the instrument was examined in two ways. First, the content validity was approved by a high school language teacher and a university professor. They agreed that the content of each item was valid. Second, the reliability of instrument was calculated and it was found that it was relatively high. KR-20 was 0.829; KR-21 was 0.697; and Cronbach Alpha was 0.829. The Standard Errors of Measurement are 2.20, 2.97, and 2.20, respectively.

Data Collection

The data were collected from February to March 2007 from 908 ninth grade students (391 boys and 517 girls) in six public high schools. The first researcher went to each school to proctor the examination by herself. Thus, this group of students was considered a primary source of data in this study.

Data analysis

Descriptive statistics were employed to analyze the test scores. Also, to understand the relationship between the students’ language ability and their educational backgrounds, Pearson Product Moment was used to analyze the data.

Results and discussion

The following Table shows the statistical information from the students' profiles.

Table 1. Statistical information from the students' profiles

Students' profiles	Min	Max	Mean	SD
Years of English Study	5	12	9.86	3.22
GPAs	2.11	4	2.92	1.54

There were 908 students in this study, 391 boys (43.06%) and 517 girls (56.93%). The average number of years of English study was 9.86 years. The average GPA was 2.92.

Next is the statistical information of the students' scores.

Table 2. Statistical information of the students' scores

Statistical terms	Values
Mean score	20.86
Standard Deviation	5.32
Mean Standard Error	0.176
Maximum score	31
Minimum score	2
Median score	22
Mode score	22

Table 2 demonstrates the statistical information of the students' scores for the language tasks, except for the new word invention task. The mean score was 20.86 (out of 57) with a standard deviation of 5.32. The maximum score is 31 and the minimum score is 2.

For the new word invention task, the students created new words by

using the letters of the word “ESTABLISHMENT.” The maximum number of words was 52, while the minimum number of words was 4. However, the ways they created the words are more interesting than the numbers of words they could produce. They produce pronouns (e.g., I, he, she), verb to be (e.g., is, am), verbs (e.g., state, establish, shame), nouns (e.g., estate, blast), prepositions (e.g., at, in), prefixes (e.g., in-, im-, il-), suffixes (e.g., -ment, -ist, -en), abbreviations (e.g., HTML). In addition, it is interesting to note that some of the students connected their English language knowledge to chemistry, that is, they wrote the symbol for chemical elements (e.g. Si, Ni, Na) and put the full names – Silicon, Nickel, and Sodium – respectively in parenthesis. By creating words this way, the students could produce a greater number of words.

The following table illustrates the correlation coefficients between the students' language ability and their educational backgrounds.

Table 3. Correlation coefficients between language ability and educational backgrounds

	Listening ability	Word analogy	Grammar	Reading comprehension	New word invention
Gender	-.278	.208	.153	.084	.363**
Years	.187	.104	.317*	.245*	.685**
GPA	.212	.365	.441**	.321*	.466*

Note. * is a significant level at .05

** is a significant level at .01

Based on the information in Table 3, three major findings are elaborated.

1. Gender is related to the ability to complete the new word invention task.

Gender does not show any significant relationship with the language tasks, except the new word invention tasks. The correlation coefficient between gender and the number of invented words in the new word invention task was 0.363, and it is significant at 0.01. It means that boys outperformed

girls. Based on the given word “ESTABLISHMENT,” boys used each letter to create new words better than girls. The boys wrote more content words (e.g., mint, blame, blast) rather than function words (e.g., is, at, in). Their words were longer (e.g., estate, state, establish). They wrote abbreviations (e.g., HTML), prefixes (e.g., in- im-, il), and suffixes (e.g., -ment, -ist, -en). Also, most male students wrote chemical elements. It seems that the boys enjoyed playing with words and understood the concept of “word.” They were also able to connect their English language knowledge with other subjects. And at this point, boys seem more creative. Ellis (1994) confirms that although female learners are better at vocabulary learning, male learners do better when they have to perform what they know.

2. The years of English study is connected to the ability to grammar, reading comprehension, and new word invention tasks.

The number of years of English study of the samples were different. Some started early at kindergarten, while others started at primary education (that is, grade 1). This is because they went to private schools first and then continued their lower secondary in public high schools. The rest started at grade 5. Thus, the number of years of English study ranged from 5 years to 12 years. In sum, those who have been exposed to English longer started earlier.

The correlation coefficient between the number of years of English study and the scores in the grammar task was 0.317, and it is significant at 0.05. In addition, the coefficients between the years of English study and the scores of reading comprehension task and the number of invented new word invention task was 0.245 and 0.685, and they are significant at 0.05 and 0.01, respectively.

There is now no doubt about the importance of the early start. The research that was done for about 30 years ago by Krashen, Long, and Scarcella (1979) states that early language learners show better results than older ones in the long run. This statement still holds true. A recent research study by Dominguez and Pessoa (2005) confirms that learners who start early outperform late learners. Other scholars such as Scovel (1988), De Bot,

Lowie, and Verspoor (2005), and Uylings (2006) also believe in the notion “the sooner, the better.” That is, the students will obtain nativelike grammar and pronunciation.

However, this study shows that years of English study is not connected to listening ability and word analogy tasks. It is likely that the students have less practice in listening. They may spend less time in practicing listening. Also, in the word analogy task, the students must employ analytical skills to analyze the relationship between the pairs of words. That is to say, the students need both analytical skills and a knowledge of vocabulary to complete this task. Or, the students may not be used to this particular task. All these points deserve further investigation.

3. Grade point averages (GPAs) are connected to the ability to do the grammar, reading comprehension, and new word invention tasks.

The grade point averages are given by the teachers, calculated from the average scores from the grades of all subjects taken during lower secondary education (3 years). The GPAs give the whole picture of the ability to learn in any subject.

The correlation coefficients between GPA and the scores of the grammar tasks, and the scores of the reading comprehension tasks, and the numbers of new words were 0.441, 0.321, and 0.466 with the significant levels at 0.01, 0.05, and 0.05, respectively.

These correlation coefficients show an empirical connection between GPA and the ability to do some language tasks. In other words, high achieving students as indicated by GPA perform well in grammar, reading comprehension, and new word invention tasks. Although Carroll (1981, p. 97) indicates that students “differ widely in their capacity to learn a foreign language easily,” GPA proves to be useful to identify those who are capable of language study.

Summary, some recommendations and caveats

This paper examined the relationships between the students' profiles as indicated by gender, years of English study, and GPAs and the ability to

perform language tasks. It can help Thai educators to better understand the nature of the students, especially of Thai EFL students in lower secondary education.

If we want to select potential lower secondary students to study in English gifted programs, what criteria can be used based on this study? Apart from other measures (i.e., teacher nomination and parent nomination), some parts of the student's profiles, (years of English study and GPAs) and at least three language tasks (the grammar task, the reading comprehension task, and the new word invention task) prove to be useful and effective. These tasks help to identify high achieving students.

It is important to note that gender seems likely to play a role, but only in the new word invention task. Therefore, it is too soon to conclude that one gender is better than the other in studying in a gifted program. This point needs closer investigation. However, the number of years of English study and GPAs may be used in conjunction with other measures.

The three language tasks, that is, the grammar task, the reading comprehension task, and the new word invention task require the students to use a higher thinking process. In order to complete the grammar and reading comprehension tasks successfully, the students have to comprehend, synthesize, and analyze the tasks. On top of that, for the new word invention task, the students have to use words creatively.

By putting the students' profiles and their abilities to perform language tasks together, we have gained insightful information. Language teachers have already had the students' personal information like the number of years of English study and GPAs. The grammar, reading comprehension, and new word invention tasks can be done by the language teachers quite easily. In addition, designing such tasks costs much less than using commercial standardized tests.

Teachers and/or administrators can use useful information—the students' profile and the scores from certain language tasks—to help identify potential students to join gifted language programs. However, they can use this information to identify potential students with the caveats that

other information should be used as well, for example, parent nomination, student nomination, and students' attitude toward English study. This information will help us to make a better decision. Last but not least, once the selection process is completed the programs of study must be well monitored and evaluated. This point is another issue that deserves further investigation.

Acknowledgement

This research project (MRG 4880219) was fully funded by the Thailand Research Fund and the Commission of Higher Education. I thank Associate Professor Dr. Siridej Sujiva for his academic support and Mr. William Madden for his editorial assistance. The first author, however, is responsible for all mistakes and errors which appear in this paper.

References

Burstall, C., Jamieson M., Cohen, S. and Hargreaves, M. (1974). **Primary French in the balance**. Windsor: National Foundation for Educational Research.

Carroll, J. B. (1981). Twenty-five years of research on foreign language aptitude. In K. C. Diller (Ed.), **Individual differences and universals in language learning aptitude** (pp. 83-117). Rowley, MA: Newbury House.

Carroll, J.B. and Sapon, S. (1958). **The Modern Language Aptitude Test-Form A**. New York: The Psychological Corporation.

Colangelo, N., and Davis, G. A. (eds.). (2003). **Handbook of gifted education**. (3rd edition). Pearson Education.

De Bot, Kees, Lowie, W., and Verspoor, M. (2005). **Second language acquisition: Advanced resource book**. London: Routledge.

Dominguez, R., and Pessoa, S. (2005). Early versus late start in foreign language education: Documenting achievement. **Foreign Language Annals** 38(4): 473 – 480.

Donato, R., Tucker, G.R., Wudthayagorn, J., and Igarashi, K. (2000). Converging evidence: Attitudes, achievements, and instruction in the later years of FLES. **Foreign Language Annals** 33(4): 377-393.

Dörnyei, Z. (2005). **The psychology of language learning**. Mahwah, NJ: Erlbaum.

Ellis, R. (1994). **The study of second language acquisition**. Oxford: Oxford University Press.

Gallagher, J. J. and Gallagher, S. A. (1994). **Teaching the gifted child**. (4th edition). Boston: Allyn and Bacon.

Griffiths, C. (ed.). (2008). **Lessons from good language learners**. Cambridge: Cambridge University Press

Grigorenko, E., Sternberg, R. and Erhman, M.E. (2000). A theory-based approach to the measurement of foreign language learning ability: the CANAL-F theory and test. **Modern Language Journal** 84: 390-405.

Hiranyaburana, S. and others. (2001). **A research report: A model of educational management for gifted students in English language**. Bangkok: The Office of Education Council.

Krashen, S. D., Long, M., A. and Scarcella, R. C. (1979). Age, rate and eventual attainment in second language acquisition. **TESOL Quarterly** 13: 578-582.

Marland, S. (1972). **Education of the gifted and the talented: Report to the Congress of the United States**. Washington, DC: U.S. Government Printing Office.

Ministry of Education. (2007). **Educational statistics** [online]. Available: http://www.moc.moe.go.th/filedata/t1_5_48.htm.

Muñoz, C. (Ed.). (2006). **Age and the rate of foreign language learning**. Clevedon: Multilingual Matters.

Neufeld, G. (1978). On the acquisition of prosodic and articulatory features in adult language learning. **Canadian Modern Language Review** 32(2): 163-174.

Nyikos, M. (2008). Gender and good language learners. In Griffiths, C. (Ed.), **Lessons from good language learners**. (pp. 73-82). Cambridge: Cambridge University Press

Office of the Education Council, The. (2006). **Education in Thailand 2005/2006**. Bangkok: Amarin Printing and Publishing.

Pibulchol, C. (2003). **A manual of learning and teaching management and curriculum administration for gifted students in English language at the upper secondary level**. Bangkok: The Office of Education Council.

Pimsleur, P., Reed , D.J. and Stansfield, C.W. (2004). **Pimsleur Language Aptitude Battery: Manual 2004 Edition**. Bethesda, MD: Second Language Testing, Inc.

Ranta, L. (2008). Aptitude and good language learners. In C. Griffiths (Ed.), **Lessons from good language learners** (pp.142-155). Cambridge: Cambridge University Press.

Samuel A., and Gallagher, J. (1986). **Educating exceptional children**. (5th edition). MA: Houghton Mifflin Company.

Scovel, T. (1988). **A time to speak: A psycholinguistic enquiry into the critical period for human speech**. Rowley, MA: Newbury House.

Skehan, P. (1991). Individual differences in second language learning. **Studies in second language acquisition** 13(2): 275-98.

Tyre, P. (2005). Boy brains, girl brains. **Newsweek** CXLVI (12), 58.

Uylings, H. B. M. (2006). Development of the human cortex and the concept of “critical” or “sensitive” period. **Language Learning** 56 (Supplement 1): 59-90.

Wiriachitra, A. (2007). **Guidelines of educational management for gifted students in English language**. Bangkok: The Office of Education Council.

Yamane, T. (1967). **Statistics: An Introductory Analysis**. (2nd edition). New York: Harper and Row.

Appendix

แบบสอบถามวัดความสามารถทางภาษาชั้นมัธยมศึกษาตอนปลาย

คำชี้แจง

1. ข้อสอบนี้มีทั้งหมด 10 หน้า (รวมหน้านี้ด้วย) 6 ตอน ดังนี้

- ❖ ประวัติของนักเรียน 20 ข้อ
- ❖ Listening 10 ข้อ
- ❖ Analogy 5 ข้อ
- ❖ Grammar 7 ข้อ
- ❖ Reading 1 ข้อ
- ❖ Word construction

2. ใช้เวลาในการทำข้อสอบ 50 นาทีและขอให้นักเรียนทำข้อสอบเต็มความสามารถ

ประวัติของนักเรียน

ชื่อ..... นามสกุล..... โรงเรียน ชั้น

1. เกรดเฉลี่ยเมื่อจบชั้นมัธยมศึกษาปี 3 (ใส่เกรดเฉลี่ย)
2. เกรดวิชาภาษาอังกฤษโดยเฉลี่ย 4 3 2 1 (วงกลมเลือกเกรด)
3. ข้าพเจ้าเคยได้เกรดวิชาภาษาอังกฤษ ถูก ผิด (วงกลมเลือกคำตอบ)
 - เกรด 2 หรือต่ำกว่าเกรด 2
4. ข้าพเจ้าเริ่มเรียนภาษาอังกฤษเมื่ออายุ ปี

Part 1: Listening

คำสั่ง ข้อสอบการฟังนี้มี 20 ข้อ เป็นการฟังภาษาไทย 10 ข้อ และ ภาษาอังกฤษ 10 ข้อ ให้นักเรียนภาคบท X ทันคำที่ได้ยิน

ตัวอย่าง เช่น

สุรศักดิ์กำลังจะแต่งงานกับ ทรงสมร/สายสมร
 นักเรียนได้ยินคำว่า “ทรงสมร” ภาคบททันคำว่า ทรงสมร
 สุรศักดิ์กำลังจะแต่งงานกับ ทรงสมร/สายสมร

1. ฉัน ลัก / รัก กี่
2. ลูกสาวของเขารือ พริม / พิม
3. นักวิทยาศาสตร์ที่ทำการวิจัยเรื่องการเจริญพันธุ์ของ ลา / รา
4. จำเริญ / เจริญ เป็นผู้จัดการของบริษัท呢มายาปีแล้ว
5. เด็กคนนี้มีความผิด ปกติ / ปกติ ทางการ ได้ยิน
6. อา / ตา ของเขานี่เป็นคนจังหวัดเชียงใหม่
7. ครูต้องการให้ สุดา / สุภา ออกมาร้องเพลงหน้าชั้น
8. ที่นี่เต็มไปด้วย ข้าว / วัว
9. พ่อของเขารือ สุทน / สุชน
10. กัปตัน สมชาย / สมชาย เป็นหัวหน้าลูกเรือในเที่ยวบินนี้
11. The **rat** / **cat** is behind the desk.
12. My mother **brought** / **bought** me a new cartoon book.
13. It is **Dave** / **Jeff** who is coming here.
14. The **Watson** / **Hudson** shopping mall is closed now.
15. My parents want to go to **Austria** / **Australia**.
16. She **forgot** / **forgets** to call her friend.
17. The more you **earn** / **learn**, the happier you are.
18. We **can** / **can't** swim in this river.
19. My father says that **she's** / **he's** a good person.
20. Is there any **wine** / **vine** in that box?

Part II: Analogy

คำสั่ง ข้อสอบวิเคราะห์นี้มี 10 ข้อ ให้นักเรียนวิเคราะห์หาความสัมพันธ์ระหว่างคำที่ให้มา และเลือกคำตอบที่คิดว่าสุดที่สุดที่สอดคล้องกับความสัมพันธ์นั้น

1. PINK : COLOR

- a. car : van
- b. cat : animal
- c. coin : collection
- d. cup : kitchen

2. MOON : CIRCLE

- a. moss : small
- b. meat : delicious
- c. sea : big
- d. book : rectangle

3. SMELL : COFFEE

- a. taste : cake
- b. feel : happy
- c. look : good
- d. hear : airplane

4. SCHOOL : STUDENT

- a. horse : jockey
- b. bus : driver
- c. ship : passenger
- d. book : writer

5. OIL : WATER

- a. computer : heavy
- b. calculator : small
- c. bicycle : material
- d. sugar : salt

6. CONCERT : AUDIENCE

- a. restaurant : waiters
- b. orchestra : musicians
- c. game : spectators
- d. school : principals

7. MAP : TRIP

- a. cookbook : meal
- b. wheel : car
- c. door : house
- d. button : shirt

8. SUBMARINE : SHARK

- a. sled : dog
- b. plow : horse
- c. airplane : hawk
- d. caravan : camel

9. PRACTICE : IMPROVEMENT

- a. memory : event
- b. chaos : arrangement
- c. thought : regret
- d. polish : sparkle

10. MARATHON : ENDURANCE

- a. race : track
- b. sprint : speed
- c. line : length
- d. hike : guide

Part III: Grammar

1. คำต่อไปนี้เป็นคำภาษาอังกฤษ ให้นักเรียนดูตัวอย่างคำที่ให้มาแล้วหาข้อสรุป เพื่อเดิน
คำตอบในช่องว่างที่กำหนดให้

<p>A. คำกริยา</p> <p>educate navigate nominate violate</p>	<p>คำนาม</p> <p>education navigation nomination</p>
<p>B. คำกริยา</p> <p>admire associate examine organize</p>	<p>คำนาม</p> <p>admiration association examination</p>
<p>C. ภาษาอังกฤษ</p> <p>คำกริยา</p> <p>agree like approve honest</p>	<p>คำกริยา</p> <p>disagree dislike disapprove</p>
<p>D. ภาษาอังกฤษ</p> <p>คำนาม (สถานที่)</p> <p>New York Iceland Pittsburgh New Zealand</p>	<p>คำนาม (คน)</p> <p>New Yorker Icelander Pittsburgher</p>
<p>E. ภาษาอังกฤษ</p> <p>คำวิเศษณ์</p> <p>regular relevant remediable responsible</p>	<p>คำวิเศษณ์</p> <p>irregular irrelevant irremediable</p>

2. ภาษาต่อไปนี้คือภาษากรีก จงศึกษาข้อมูลทางภาษาที่กำหนดให้และเติมคำลงในช่องว่าง

“ฉัน x” “คุณ x” “เขา x”

รัก	amo	amas	amat
คิด	puto	putas	_____
ตัด	_____	secas	_____

3. ภาษาต่อไปนี้คือภาษาลาโკต้า (Lakhota) (ภาษาของชาวอินเดียนแดงในประเทศสหรัฐอเมริกา) จงศึกษาข้อมูลทางภาษาที่กำหนดให้และเติมคำลงในช่องว่าง

ma-híxpaye	ฉันตกลงมา
ma-t'e'	ฉันตาย
ma-č'áca	ฉันหนาสัน

คำว่า “ฉัน” ในภาษาลาโკต้า คือ คำว่า _____

คำว่า “ตกลงมา” ในภาษาลาโკต้า คือ คำว่า _____

คำว่า “ตาย” ในภาษาลาโკต้า คือ คำว่า _____

คำว่า “หนาสัน” ในภาษาลาโკต้า คือ คำว่า _____

4. ภาษาต่อไปนี้คือภาษาอา拉บิก จงศึกษาข้อมูลทางภาษาที่กำหนดให้และเติมคำลงในช่องว่าง

sign	“prison”	suguun	“prisons”
farq	“difference”	furuuq	“differences”
dars	“lesson”	duruus	(1) “_____”
(2) _____	“cheek”	xuduud	(3) “_____”
raff (4) “_____”		(5) _____	“shelves”

5. ภาษาต่อไปนี้คือภาษาชิบชัน (Chibchan) (ภาษาของชาวคอสตราวิถีและปานามา) จงศึกษาข้อมูลทางภาษาที่กำหนดให้และเขียนประโยคลงในช่องว่าง

Davi-e Dori	gare	เดวิดรูจิกโดริ
Toma-e Dori	titi	ทอมจามโดริได

Ti-e t̄imēna nib-i ฉันทิวน้ำ^{ี้}
Dori-e t̄imēna nib-i โครหิวน้ำ

จงเขียนประโยค “ท่อนหิวน้ำ” _____

จงเขียนประโยค “ฉันรักโคร” _____

จงเขียนประโยค “โครจำฉันได้” _____

Part IV : Reading

คำสั่ง จงอ่านเรื่องดังต่อไปนี้ และตอบคำตามข้อที่ 1-10

1	<p>It's Monday, and I'm on my way to the small town of Pendleton, Oregon, to interview a sheriff who, like a lot of Americans, is fed up with what he considers this country's broken borders.</p>
5	<p>In fact, he's so frustrated that he has sent a letter to Mexican President Vicente Fox demanding that the Mexican government cough up more than \$300,000 for the jailing of illegal immigrants in Umatilla County, Oregon.</p>
10	<p>This country has seen its Latino population soar in recent years. That has meant an increase in illegal immigrants taking up jail space, according to Umatilla County Sheriff John Trumbo. And Trumbo thinks the Mexican government should pay.</p>
15	<p>I've never really thought of Oregon as the type of place to draw a lot of illegal immigrants, but because of its large farms and agriculture industry, it does.</p> <p>For tonight's show, we'll talk to Trumbo about his novel approach to the immigration issue and ask him what, if anything, he's heard from President Fox.</p> <p>The sheriff's actions aren't going to endear him to the Latino population. According to the Los Angeles Times, many of the county's citizens are infuriated with him. We'll talk to some of them as well.</p> <p>What do you think? Should the Mexican government help cover the costs of jailing illegal immigrants?</p>

1. What is the best topic of this passage?
 - a. Country's borders
 - b. Immigrants in Oregon
 - c. Let's talk to Trumbo
 - d. Sheriff says you owe us \$300,000

2. What is the tone of this passage?
 - a. angry
 - b. joyful
 - c. amazing
 - d. disbelieved
3. The word **soar** in line 7 means...
 - a. decrease
 - b. move up
 - c. stop
 - d. fluctuate
4. The word **draw** in line 10 means...
 - a. invite
 - b. deny
 - c. expel
 - d. relocate
5. The word **we** in line 12 refers to...
 - a. Illegal immigrants
 - b. Sheriff
 - c. The author
 - d. Latinos
6. Where may this passage appear?
 - a. In the textbook
 - b. In the newspaper
 - c. In the tourbook
 - d. In the diary
7. Why does the sheriff send the letter to President Fox?
 - a. He feels that President Fox should be responsible for the expense.
 - b. He feels that President Fox should understand the immigration situation.
 - c. He thinks that he cannot take care Latinos in Oregon.
 - d. He thinks that the country's citizen should understand his feeling.

Part V : Word Construction

คำสั่ง จงสร้างคำใหม่ (ที่มีความหมาย) ให้มากที่สุดโดยใช้ตัวอักษรจากคำที่กำหนดให้

ตัวอย่าง เช่น

NOODLE : NO, ON, DO, NOD, DONE, DOLE,...

ESTABLISHMENT: