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The Minimal English Test: A Version with Words with 5 Letters or Fewer*

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1. Introduction

The purpose of this paper is to present a new version of the Minimal English Test (MET) and to investigate the correlation between the scores on this version of the MET and the scores on the Japanese University Entrance Examination (English Part) 2008, administered by the University Entrance Examination Center. We call the University Entrance Examination (English Part) 2008 the Center Test (CT) 2008 hereafter. Maki, Wasada, and Hashimoto (2003) developed the original version of the MET, which requires the test taker to write a correct English word with 4 letters or fewer into each of the 72 blank spaces of the given sentences, written on one piece A4 paper, while listening to the CD on which the sentences are recorded. We call this version of the MET the MET 4, naming after the number of the letters of the words to be filled in the blank spaces. Maki, Wasada, and Hashimoto (2003) showed that there was a statistically significant correlation between the scores on the MET and the scores on the CT 2002 ($r=.68$, $p<.05$, and $n=154$). Since then, the Maki group has investigated the correlations between the two types of the tests, and found relatively strong correlations between the scores on the MET and the scores on the CTs 2002-2008 ($.60 \leq r \leq .72$).^{1,2}

During this period of time, the question arose as to whether the original version of the MET, the MET 4, was the only version of the MET which could more or less predict the scores on the CTs. In order to see if there is a different version of the MET that will have the same effect as the MET 4, we created a new version of the MET, which requires the test taker to write a correct English word with 5 letters or fewer into each of the 72 blank spaces of the given sentences, while listening to the CD. We call this version of the MET the MET 5. We then examined the correlation coefficients between the scores on the MET 5 and the total scores on the CT 2008, the scores on the Reading Section of the CT 2008, and the scores on the Listening Section of the CT 2008. Maki et al (2009) report that the correlation coefficient between the scores on the MET 4 and the total scores (the sum of the scores on the Reading Section and the scores on the Listening Section) on the CT 2008 was .65, that the correlation coefficient between the scores on the MET 4 and the scores on the Reading Section of the CT 2008 was .60, and that the correlation coefficient between the scores on the MET 4 and the scores on the Listening Section of the CT 2008 was .67. The present paper reports that the correlation coefficient between the scores on the MET 5 and the total scores on the CT 2008 was .66, that the correlation coefficient between the scores on the MET 5 and the scores on the Reading Section of the CT 2008 was .63, and that the correlation coefficient between the scores on the MET 5 and the scores on the Listening Section of the CT 2008 was .57.

We then examined whether there was a statistically significant difference between the two correlation coefficients for each of the Reading Section, the Listening Section, and the sum of the Reading Section and the Listening Section by using the Fisher r -to- z transformation, and found that there was no statistically significant difference between the correlation coefficients of the Reading Section, and between the correlation coefficients of the sum of the Reading Section and the Listening Section, and that there was a statistically significant difference between the correlation coefficients of the Listening Section. Therefore, it turned out that as far as the scores on the Listening Section of the CT 2008 were concerned, the MET 4 could predict them better than the MET 5.

The organization of this paper is as follows. Section 2 gives an overview of the materials (the Minimal English Test 5 (MET 5) and the University Entrance Examination (English Part) 2008 (CT 2008)) to be used in this research. Section 3 analyzes the data, and Section 4 reports the results. Section 5 concludes the paper.

2. Materials

Section 2.1 gives an overview of the Minimal English Test 5 (MET 5), and Section 2.2 gives an overview of the University Entrance Examination (English Part) 2008 (CT 2008).

2.1 The Minimal English Test 5 (MET 5)

The MET 5 is a simple test which requires the test taker to write a correct English word with 5 letters or fewer into each of the 72 blank spaces of the given sentences, written on one piece A4 paper, while listening to the CD on which the sentences are recorded. The MET 5 is based on Lessons 1 and 2 of the textbook for university 1st year students written by Kawana and Walker (2002) and the CD that accompanies it. The contents of the textbook are essays on the modern society of the United States. The CD lasts about 5 minutes with a speed of 125 words per minute. The MET 5 is shown below.

The Minimal English Test 5 (MET 5)

Name: _____ Date: Month _____ Day _____ Year _____ Score: _____/72

The Score on the Reading Section of the University Entrance Examination (English Part) 2008: _____/200

The Score on the Listening Section of the University Entrance Examination (English Part) 2008: _____/50

Please fill an English word with 5 letters or fewer into each blank space, while listening to the CD.

1. The majority of people have at () one pet at some time in their ().
2. Sometimes the relationship between a pet () or cat and its () is so close
3. that they () to resemble each other () their appearance and behavior.
4. On the () hand, owners of unusual pets () as tigers or snakes
5. sometimes () to protect themselves from their () pets.
6. Thirty years ago the () of an inanimate pet first ().
7. This was the pet (), which became a craze () the United States and
8. spread () other countries as ().
9. People paid large sums of () for ordinary rocks and assigned them ().
10. They () a leash around the rock and pulled it () the street
11. just like a (). The rock owners () talked to their pet rocks.
12. Now () we have entered the computer (),
13. we have virtual (). The Japanese Tamagotchi--- () imaginary chicken egg---
14. () the precursor of () virtual pets.
15. Now there () an ever-increasing number () such virtual pets
16. which mostly () people are adopting () their own.
17. And if () virtual pet dies, you () reserve a permanent resting place
18. () the Internet in () virtual pet cemetery.
19. Sports are () business. Whereas Babe Ruth, the () famous athlete
20. of his (), was well-known for earning as () as the President of the United States,
21. the average salary () today's professional baseball players is ten times ()
22. of the President. And a handful of sports superstars () 100 () more
23. through their contracts () manufacturers of clothing, (), and sports equipment.
24. But () generation produces () or two legendary athletes
25. who rewrite the record (), and whose ability and achievements () remembered
26. for generations. () the current generation Tiger Woods () Michael Jordan
27. are () such legendary figures, both of () have achieved almost mythical status.
28. The fact that a () number of professional athletes earn () incomes
29. has () to increased competition throughout the sports ().
30. Parents () their children to sports training () at an early age.
31. Such () typically practice () to four hours a day,
32. () weekend and during () school vacations
33. in () to better their chances of eventually obtaining a well- () position
34. on a professional () when they () up.
35. As for the () young aspirants who do () succeed,
36. one wonders () they will regret having () their childhood.

The test taker is given the following 4 instructions in advance.

1. Write the score of the University Entrance Examination (English Part) that you took in 2008.
2. Fill an English word with 5 letters or fewer into each of the blank spaces, while listening to the CD.
3. The CD lasts about 5 minutes.
4. There is about a three-second interval between Line 18 and Line 19.

After the above instructions were given, the volume of the CD was checked, and the MET 5 was administered.

2.2 The University Entrance Examination (English Part) 2008 (CT 2008)

The University Entrance Examination Center (2008) provides the summary of the CT 2008 results below.

The Reading Section of the CT 2008

Observations	497,101
Full mark	200
Number of questions	50
Average score	125.26
Standard deviation	39.28
Time limit	80 minutes
Date	January 19th, 2008

The Listening Section of the CT 2008

Observations	490,853
Full mark	50
Number of questions	25
Average score	29.45
Standard deviation	8.72
Time limit	30 minutes
Date	January 19th, 2008

The Reading Section of the CT 2008, contains questions about pronunciation, grammar, reordering of sentences, and reading comprehension, and the Listening Section of the CT 2008, contains questions about listening comprehension.

3. Data and Analysis**3.1 Data**

The MET 5 was administered at 6 universities in Japan during the period from mid April to the end of May of 2008. The total number of the data was 367.

3.2 Analysis

We analyzed the data (the scores on the MET 5 and the scores on the CT 2008) by a simple regression analysis (correlation analysis). The results are shown below.

Correlation Between the Scores on the MET 5 and the Total Scores on the CT 2008

Regression Statistics	
Correlation Coefficient (R)	0.66449
R Square	0.441547
Adjusted R Square	0.440017
Standard Error	24.77835
Observations	367
P-value	4.18E-48

Correlation Between the Scores on the MET 5 and the Scores on the Reading Section of the CT 2008

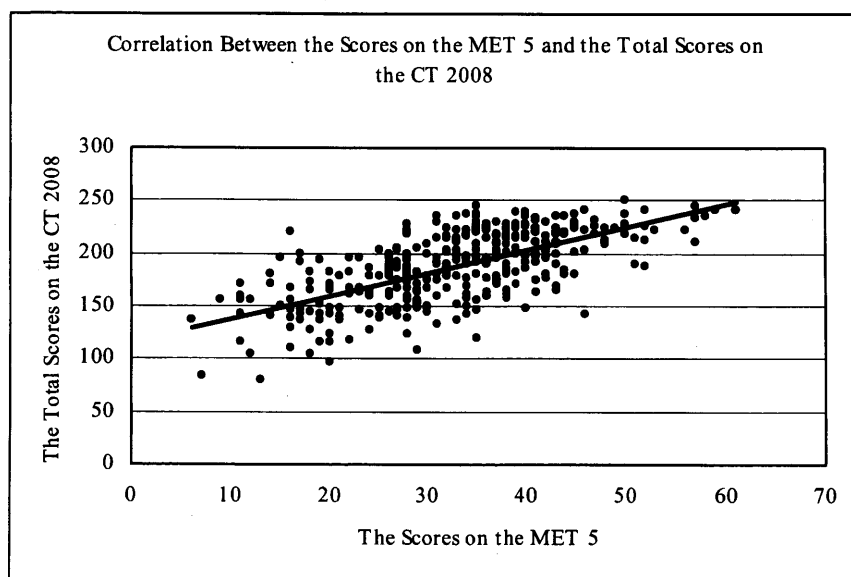
Regression Statistics	
Correlation Coefficient (R)	0.632728
R Square	0.400345
Adjusted R Square	0.398702
Standard Error	21.59948
Observations	367
P-value	1.93E-42

Correlation Between the Scores on the MET 5 and the Scores on the Listening Section of the CT 2008

Regression Statistics	
Correlation Coefficient (R)	0.572563
R Square	0.327828
Adjusted R Square	0.325987
Standard Error	6.277676
Observations	367
P-value	2.37E-33

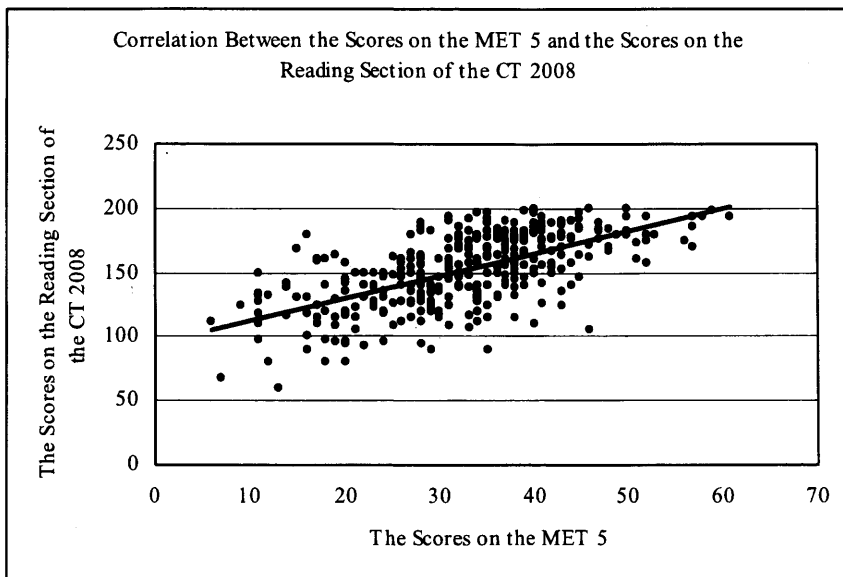
The results of these analyses are more clearly represented by the following graphs.

Correlation Between the Scores on the MET 5 and the Total Scores on the CT 2008



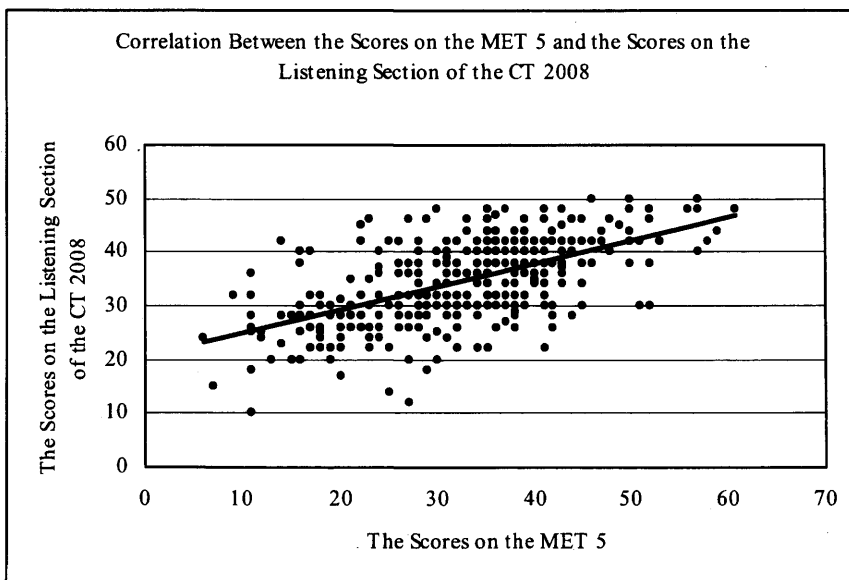
The regression line is $y = 2.18x + 115.61$.

Correlation Between the Scores on the MET 5 and the Scores on the Reading Section of the CT 2008



The regression line is $y = 1.74x + 95.01$.

Correlation Between the Scores on the MET 5 and the Scores on the Listening Section of the CT 2008



The regression line is $y = .43x + 20.60$.

Maki et al (2009) analyzed the data (the scores on the MET 4 and the scores on the CT 2008) by a simple regression analysis (correlation analysis). The results are shown below.

Correlation Between the Scores on the MET 4 and the Total Scores on the CT 2008

Regression Statistics	
Correlation Coefficient (R)	0.653939
R Square	0.427637
Adjusted R Square	0.426616
Standard Error	27.27388
Observations	563
P-value	6.91E-76

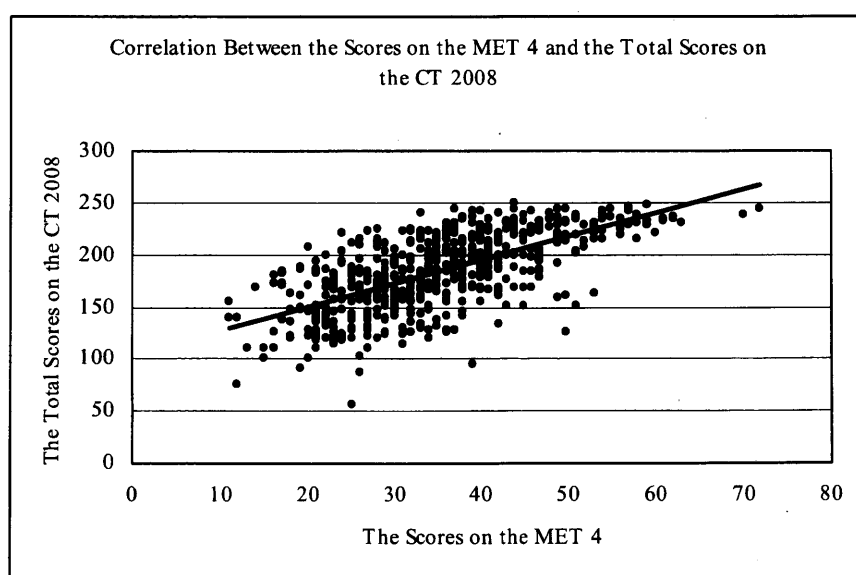
Correlation Between the Scores on the MET 4 and the Scores on the Reading Section of the CT 2008

Regression Statistics	
Correlation Coefficient (R)	0.59853
R Square	0.358239
Adjusted R Square	0.357095
Standard Error	24.22725
Observations	563
P-value	5.21E-56

Correlation Between the Scores on the MET 4 and the Scores on the Listening Section of the CT 2008

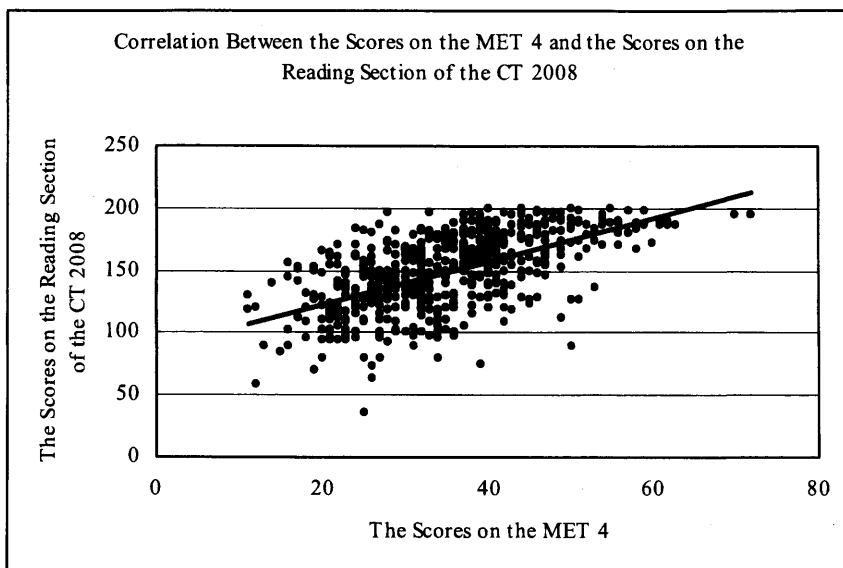
Regression Statistics	
Correlation Coefficient (R)	0.674262
R Square	0.454629
Adjusted R Square	0.453657
Standard Error	5.995211
Observations	563
P-value	6.91E-76

The results of these analyses are more clearly represented by the following graphs.

Correlation Between the Scores on the MET 4 and the Total Scores on the CT 2008

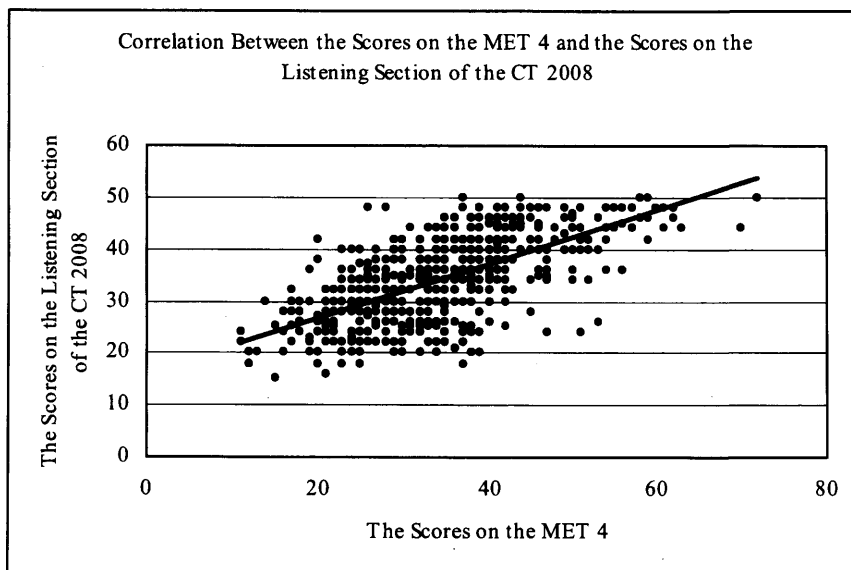
The regression line is $y = 2.25x + 104.43$.

Correlation Between the Scores on the MET 4 and the Scores on the Reading Section of the CT 2008



The regression line is $y = 1.73x + 88.22$.

Correlation Between the Scores on the MET 4 and the Scores on the Listening Section of the CT 2008



The regression line is $y = .52x + 16.2$.

As the above analyses show, as for the MET 5, (1) the scores on the MET 5 and the total scores on the CT 2008 had the highest correlation ($r=.66$, $p<.05$); (2) the scores on the MET 5 and the scores on the Reading Section of the CT 2008 had the second highest correlation ($r=.63$, $p<.05$); and (3) the scores on the MET 5 and the scores on the Listening Section of the CT 2008 had the lowest correlation ($r=.57$, $p<.05$).

On the other hand, as for the MET 4, (1) the scores on the MET and the scores on the Listening Section of the CT 2008 had the highest correlation ($r=.67$, $p<.05$); (2) the scores on the MET and the total scores on the CT 2008 had the second highest correlation ($r=.65$, $p<.05$); and (3) the scores on the MET and the scores on the Reading

Section of the CT 2008 had the lowest correlation ($r=.60$, $p<0.5$). The results of the analyses are summarized in the following chart.³

Results of the Analyses of the Scores on the MET 5 and MET 4 and the Scores on the CT 2008

Year	Type	Observations	Correlation Coefficient (R)	Regression Line
2008	MET 5	367	.63 (Reading)	$y = 1.74x + 95.01$
			.57 (Listening)	$y = .43x + 20.60$
			.66 (Reading and Listening)	$y = 2.18x + 115.61$
2008	MET 4	563	.60 (Reading)	$y = 1.73x + 88.22$
			.67 (Listening)	$y = .52x + 16.20$
			.65 (Reading and Listening)	$y = 2.25x + 104.43$

We then examined whether there was a statistically significant difference between the two correlation coefficients for each of the Reading Section, the Listening Section, and the sum of the Reading Section and the Listening Section by using the Fisher r -to- z transformation provided by VassarStats: Web Site for Statistical Computation (2009). According to VassarStats: Web Site for Statistical Computation (2009), the Fisher r -to- z transformation calculates a value of z that can be applied to assess the significance of the difference between two correlation coefficients, r_a and r_b , found in two independent samples. The results of the analyses are shown below.

First, there was no statistically significant difference between the correlation coefficients of the Reading Section (p two-tail=.47), as shown in the following chart.

Significance of the Difference Between the Correlation Coefficients of the Reading Section

	MET 5	MET 4
Correlation Coefficient (R)	0.63	0.60
Observations	367	563
z		0.72
P two-tail		0.47

Second, there was a statistically significant difference between the correlation coefficients of the Listening Section (p two-tail=.02), as shown in the following chart.

Significance of the Difference Between the Correlation Coefficients of the Listening Section

	MET 5	MET 4
Correlation Coefficient (R)	0.57	0.67
Observations	367	563
z		-2.42
P two-tail		0.02

This indicates that the MET 4 can predict the scores on the Listening Section of the CT 2008 better than the MET 5.

Third, and finally, there was no statistically significant difference between the correlation coefficients of the sum of the Reading Section and the Listening Section (p two-tail=.80), as shown in the following chart.

Significance of the Difference Between the Correlation Coefficients of the Sum of the Reading Section and the Listening Section

	MET 5	MET 4
Correlation Coefficient (R)	0.66	0.65
Observations	367	563
z		0.26
P two-tail		0.80

4. Results

We started this paper with the question as to whether the original version of the MET, the MET 4, was the only version of the MET which could more or less predict the scores on the CTs, and in order to see if this was correct, we made the MET 5, and examined the correlation coefficients between the scores on the MET 5 and the total scores on the CT 2008, the scores on the Reading Section of the CT 2008, and the scores on the Listening Section of the CT 2008. The results of the analyses (the simple regression analysis and the Fisher r -to- z transformation) show (1) that there was no statistically significant difference between the correlation coefficients of the Reading Section, and between the correlation coefficients of the sum of the Reading Section and the Listening Section, and (2) that there was a statistically significant difference between the correlation coefficients of the Listening Section. The latter indicates that the MET 4 can predict the scores on the Listening Section of the CT 2008 better than the MET 5.

5. Conclusion

In this paper, we have found that in terms of the scores on the Listening Section of the CT 2008, the MET 4 can predict them better than the MET 5, but in terms of the scores on the Reading Section of the CT 2008 and the total scores on the CT 2008, there is no statistically significant difference between the MET 4 and the MET 5 in predicting those scores. Therefore, the answer to the question as to whether the original version of the MET, the MET 4, was the only version of the MET which could more or less predict the scores on the CTs, is partially positive in predicting the scores on the Listening Section of the CT 2008, and partially negative in predicting the scores on the Reading Section of the CT 2008 and the total scores on the CT 2008.

References

- Kawana, Norihito and Stuart Walker (2002) *This is Media.com*. Tokyo: Seibido.
- Maki, Hideki, Takane Ito, Yoichi Miyamoto, Satoshi Oku, Asako Uchibori, and Yukiko Ueda (2004) "The Minimal English Test: Its Correlation with the College Entrance Examination (English Part) 2003." *Bulletin of the Faculty of Regional Studies, Gifu University* 15, 39-46.
- Maki, Hideki, Chise Kasai, Kenichi Goto, Megumi Hasebe, Satoshi Oku, Yoichi Miyamoto, Michiyo Hamasaki, Yukiko Ueda, Kosuke Nagasue, Hironobu Kasai, and Jessica Dunton (2009) "The Minimal English Test: Its Correlation with the University Entrance Examination (English Part) 2008." *Bulletin of the Faculty of Regional Studies, Gifu University* 24, 53-60.
- Maki, Hideki, Chise Kasai, Kenichi Goto, Yuka Morita, Yoko Yumoto, Masao Ochi, Satoshi Oku, and Masahiko Date (2006) "The Minimal English Test: Its Correlation with the College Entrance Examination (English Part) 2005." *Bulletin of the Faculty of Regional Studies, Gifu University* 19, 33-37.

- Maki, Hideki, Chise Kasai, Kenichi Goto, Akina Okada, Kazushige Takahashi, Megumi Hasebe, Hirotaka Imamaki, Akane Ishikawa, Takane Ito, Satoshi Oku, Yoko Yumoto, Yoichi Miyamoto, Masao Ochi, Michiyo Hamasaki, Yukiko Ueda, Kosuke Nagasue, Hironobu Kasai, and Jessica Dunton (2008) "The Minimal English Test: Its Correlation with the University Entrance Examination (English Part) 2007." *Bulletin of the Faculty of Regional Studies, Gifu University* 23, 79-86.
- Maki, Hideki, Chise Kasai, Kenichi Goto, Takane Ito, Yoichi Miyamoto, and Satoshi Oku (2007) "The Minimal English Test: Its Correlation with the College Entrance Examination (English Part) 2006." *Bulletin of the Faculty of Regional Studies, Gifu University* 21, 127-134.
- Maki, Hideki, Alexandra von Fragstein, Tamami Morishima, Ryoko Tsuruta, Takane Ito, Yoichi Miyamoto, Satoshi Oku, Asako Uchibori, Masahiko Date, and Kenjiro Tagawa (2005) "The Minimal English Test: Its Correlation with the College Entrance Examination (English Part) 2004." *Bulletin of the Faculty of Regional Studies, Gifu University* 17, 53-57.
- Maki, Hideki, Hiroaki Wasada, and Ekuko Hashimoto (2003) "Saishoo Eego Tesuto: Shoki Kenkyuu." (The Minimal English Test: A Preliminary Study) *Eego Kyooiku* (The English Teachers' Magazine) 53.10, 47-50.
- The University Entrance Examination Center (2008) <http://www.dnc.ac.jp/index.htm/>
- Yanai, Hisae (1998) *4 Steps Ekuseru Toukei (4 Steps Excel Statistics)*. Saitama: OMS.
- VassarStats: Web Site for Statistical Computation (2009) <http://faculty.vassar.edu/lowry/VassarStats.html>. Retrieved on April 1, 2009.

Notes

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1. We follow Yanai (1998) in interpreting values of correlation coefficients. She assumes the following correspondence between correlation coefficients and their characteristics.

Correlation Coefficients	Characteristics
$0.0 \leq r < 0.2 $	almost no correlation
$ 0.2 \leq r < 0.4 $	weak correlation
$ 0.4 \leq r < 0.7 $	moderate correlation
$ 0.7 \leq r < 0.9 $	strong correlation
$ 0.9 \leq r < 1.0 $	extremely strong correlation

2. See Maki et al (2003, 2004, 2005, 2006, 2007, 2008, and 2009).

3. Note in passing that there was a statistically significant difference between the mean scores on the MET 5 and the MET 4, as shown below.

t-Test Assuming Unequal Sample Variances Between the Mean Scores on the MET 5 and the Mean Scores on the MET 4

	MET 5	MET 4
Mean	32.62943	34.80284
Observations	367	563
t Stat	-3.16242	
P(T<=t) two-tail	0.001624	
t Critical two tail	1.96293	

On the other hand, there were no statistically significant differences between the mean scores on the CT 2008 (the Reading Section, the Listening Section, and the sum of the Reading Section and the Listening Section) taken by those who took the MET 5 and the mean scores on the CT 2008 (the Reading Section, the Listening Section, and the sum of the Reading Section and the Listening Section) taken by those who took the MET 4, as shown below.

t-Test Assuming Unequal Sample Variances Between the Mean Scores on the Reading Section Taken by Those Who Took the MET 5 and the Mean Scores on the Reading Section Taken by Those Who Took the MET 4

	MET 5 Subjects	MET 4 Subjects
Mean	151.9183	148.4405
Observations	367	563
t Stat	1.799327	
P(T<=t) two-tail	0.072332	
t Critical two tail	1.96284	

t-Test Assuming Unequal Sample Variances Between the Mean Scores on the Sum of the Reading Section and the Listening Section Taken by Those Who Took the MET 5 and the Mean Scores on the Sum of the Reading Section and the Listening Section Taken by Those Who Took the MET 4

	MET 5 Subjects	MET 4 Subjects
Mean	34.73297	34.41385
Observations	367	563
t Stat	0.60724	
P(T<=t) two-tail	0.543861	
t Critical two tail	1.962883	

t-Test Assuming Unequal Sample Variances Between the Mean Scores on the Listening Section Taken by Those Who Took the MET 5 and the Mean Scores on the Listening Section Taken by Those Who Took the MET 4

	MET 5 Subjects	MET 4 Subjects
Mean	186.6512	182.8544
Observations	367	563
t Stat	1.650538	
P(T<=t) two-tail	0.099212	
t Critical two tail	1.962833	

These results indicate that the MET 5 was more difficult than the MET 4. This may be expected because it would take more time to write 5 letters than 4 letters. Note, however, that whether the MET 5 is more difficult than the MET 4 does not affect the

simple regression analysis between the scores on the given MET and the scores on the CT 2008.