

【報 告】

Report on Teaching English A1 and B1 Core Skills in 2020: Implications from Student Survey, Core Skills Tests, and TOEFL Data

SPRING Ryan¹⁾*, OKADA Takeshi¹⁾

1) Institute for Excellence in Higher Education

This report summarizes initial findings of how the implementation of A1 and B1 core skills into the 1st year general education English curriculum at Tohoku University impacted learning. It finds that the A1 and B1 core skills were generally correlated to higher TOEFL scores, both overall and domain specific, and that the core skills tests created were adequately representative tests of these English skills. It also finds that students who reported making gains in their confidence in A1 core skills had higher TOEFL scores than those that reported no gain, and that students who reported not making gains in confidence in B1 core skills specifically due to not having been taught them had lower TOEFL scores. Finally, it found that students who found the Pathways and TOEFL Guide helpful to their classwork were more likely to have reported gains in confidence in core skills. Summatively, this report supports the notion of teaching these core skills at Tohoku University.

1. Introduction

In an effort to improve the teaching of academic English at Tohoku University, an English curriculum reform committee was formed in 2019. The committee decided on 3 objectives, each comprised of 2 core skills, for each of the first-year English courses: English A1, A2, B1 and B2. The English curriculum reform committee proposed that the teaching of these skills be mandatory in an effort to consolidate academic skills, and this proposal was approved by the English Teaching Committee for implementation in 2020. However, in order to improve the English teaching environment at Tohoku University, it is important to continually evaluate the changes made to the curriculum through objective measurements and proper analysis, and for educators and administrators to be aware of how the curriculum and surrounding suggestions are working, as part of the PDCA (plan-do-check-act) cycle. This report aims to provide a preliminary look at how the initial changes to the curriculum have affected English teaching in the first semester of 2020. It also

seeks to evaluate appropriateness of the core skills and surrounding materials in the first-semester courses (English A1 and B1). Due to the spread of the COVID-19 virus, pre- and post-test data could not be taken as planned, but the results of a student survey and test of English as a foreign language (TOEFL) test scores taken at the end of the first semester are analyzed in order to glean what information we could.

2. Background

The English curriculum reform committee was tasked by the English teaching committee with proposing a more efficient, uniform curriculum for general-education English classes at Tohoku University that would give students the skills they needed for their academic endeavors in English in their upper division classes and laboratories and help better prepare them for academic English, as gauged by the *TOEFL ITP*[®] (Test of English as a Foreign Language Institutional Testing Program) assessment. In order to do so, the members of the reform

*) 連絡先：〒980-8576 仙台市青葉区川内41 東北大学高度教養教育・学生支援機構 spring.ryan.edward.c4@tohoku.ac.jp takeshi.okada.a8@tohoku.ac.jp

committee focused on explicitly stating the skills or topics that should be taught to first year students in their four English classes (English A1, A2, B1 and B2), and then providing suggested materials for students and teachers. A needs analysis was performed to determine the skills and topics by surveying the various departments that deal with upper level classes, reviewing important topics in EGAP (English for General Academic Purposes), and partnering with Educational Testing Service (hereafter, ETS), who create the *TOEFL ITP*[®] test, one of the assessments in the family of TOEFL tests that are widely used to assess English as a Foreign Language for university admissions throughout the world. This led to the selection of 24 “core skills” at Tohoku University, which were divided evenly amongst the four general English classes. However, as the only data available at the time of writing this paper is from the first semester, this paper explicitly looks at the 12 core skills in English A1 and English B1 in 2020.

A new edition of *Pathways to Academic English* (Takebayashi, 2020) was created to serve as a guide for students and teachers so that they understood what each core skill was, and what the important information to know for each is. The chapters were written by a team of English teachers in the Tohoku University Institute for Excellence in Higher Education Center for Cultural and Language Education English group. Furthermore, the same group of teachers worked to make suggested teaching and practice materials, that could be downloaded from a Google Drive by teachers and students to aid in the learning of the core skills. These materials included practice worksheets, practice listening files and at least one quiz or homework assignment that either tested each core skill ability, or knowledge of the core skill. *Pathways to Academic English* was distributed to all first-year English students, along with *the Official Guide to the*

TOEFL-ITP[®] *Assessment Series* (ETS, 2020). Teachers were asked to make use of these in their classes, but how to do so was left up to each individual teacher.

The three objectives and six core skills selected for English A1 were:

Objective 1: Improve reading and vocabulary building skills

1. Word parts
2. Synonym vocabulary

Objective 2: Acquire the ability to quickly recognize the text’s main idea and key information

1. Skimming and scanning
2. Summarizing and paraphrasing

Objective 3: Attain the ability to quickly identify the text’s organization and logic

1. Determining connotative and denotative meaning
2. Making inferences

“Word parts” were selected as a core skill due to the large number of academic words that are comprised of them, and the word parts selected for inclusion in *Pathways to Academic English* were decided by identifying word parts that were in key words either in academic word lists (Coxhead, 2000; Schmitt, 2008; etc.) or introductory texts in the available majors at Tohoku University. “Synonym vocabulary” was selected as it is important for creating paraphrases and also for identifying the same information put into different words when reading academic texts and the fact that building vocabulary is one of the basic building blocks of the L2 reading process (Nation, 2013). “Skimming and scanning” was selected as it is often pointed out as important for getting the main ideas and key information in texts quickly and efficiently (ETS, 2020), which is important when conducting research in English, as well as when taking the *TOEFL ITP*[®] test¹. “Summarizing and paraphrasing” was selected because this is a vital

skill when citing or referencing other sources when writing papers in English, and also because it is necessary for identifying correct answers on the *TOEFL ITP*[®] test, as general information questions generally appear as paraphrases, not exactly as they are in the main texts. “Denotative and connotative meaning” was selected, as this is identified as an important skill for both determining author opinion and recognizing differences in synonyms and translation equivalents in the L2 and L1 (Omar, 2012). “Making inferences” was included as this is a vital skill for correctly understanding the conclusions and opinions an author makes in academic writing, and is also an integral part of the *TOEFL ITP*[®] test. The information selected for inclusion in *Pathways to Academic English* for these final sections comes from Tyler (2008) who notes that understanding epistemic meanings of modal verbs is important for identifying implication, and the common written academic expressions generally used for correctly identifying the logical connection between pieces of information as per Schmitt (2012) and Simpson-Vlach and Ellis (2010).

The three objectives and six core skills selected for English B1 were:

Objective 1: Acquire the ability to take notes about main points while listening

1. Note-taking while listening
2. Orally summarizing from notes

Objective 2: Acquire a series of skills and strategies to become a successful listener

1. Phrasal verbs
2. Idiomatic expressions

Objective 3: Acquire the ability of verbal expression in academic settings

1. Giving opinions and conjecturing
2. Interrogatives

“Note-taking while listening” was selected due to the

fact that focus on meta-cognitive strategies helps to improve listening ability (e.g. Vandergrift, 1999), and because note-taking is a skill that is generally required for university students in their classes and when doing research. Though “orally summarizing notes” is not represented on the *TOEFL-ITP*[®] test, it is necessary for students when discussing information in classes and is an integral part of academic English (ETS, 2020) and can help to increase the number of formulaic chunks that students know, increasing both speaking and listening skills (Garnier & Schmitt, 2016). “Phrasal verbs” and “idiomatic expressions” were selected as core skills designed to help students with the idiomatic language that appears in academic English and on the *TOEFL ITP*[®] test. Phrasal verbs are thought to be particularly important because of their frequency in spoken English and the difficulty that L2 learners have with them (Liao & Fukuya, 2002; Jahedi & Mukundan, 2015), especially Japanese learners of English (Spring, 2018; 2019). The information and particular phrasal verbs and idiomatic expressions selected for inclusion in *Pathways to Academic English* were taken from Spring (2018), Martinez and Schmitt (2012) and Simpson-Vlach and Ellis (2010) which claim to represent many of the most common formulas and phrasal expressions in academic English. “Giving opinions and conjecturing” was selected due to it being the first important stage of spoken academic English, and “interrogatives” were selected as a core skill as a compliment to giving opinions and also due to the frequency with which they are misunderstood and incorrectly used by L1 Japanese EFL learners (Hawkins & Hattori, 2006).

The *TOEFL ITP*[®] is an assessment designed to reliably gauge students’ academic language proficiency (ETS, 2020). It is divided into three sections: Listening Comprehension, Structure and Written Expression, and Reading Comprehension.

The paper-based version has been administered at Tohoku University for several years to monitor changes and improvements in academic English proficiency, but unfortunately, average student *TOEFL ITP*[®] scores are generally just below 500, and not much change has been from 2009 to 2015 (Tohoku University, 2015). In order to help remedy this, in addition to the new curriculum and *Pathways to Academic English*, students were expected to purchase a copy of *the Official Guide to the TOEFL ITP Assessment Series* (ETS, 2019) and suggestions for problems related to the core skills were made to teachers, although whether or not to use this book and how to integrate it into their classes was also left to individual teachers to decide.

Finally, a final test for both English A1 and English B1 was created by the same group of individuals who created *Pathways to Academic English*, based on the core skills and information contained within. For example, questions about phrasal verbs were contained in the English B1 final test, but only questions about the exact phrasal verbs and related information contained in *Pathways to Academic English* were included. Teachers were allowed to use the tests or not, at their own discretion, and in the end, six teachers opted to use them with their classes, and this data was included in our main study.

Based on the aforementioned studies and the data available at the time of writing this paper, we seek to inform the future revision and improvement of English curriculum reform at Tohoku University by answering the following research questions:

1. Were the English A1 and objectives correlated with academic English skills in general, or academic reading ability, as indicated by *TOEFL ITP*[®] test scores?
2. Were the English B1 and objectives correlated with academic English skills in general, or academic listening ability, as indicated by *TOEFL ITP*[®] test

scores?

3. Was teaching or learning of the core skills correlated with higher or lower academic English ability, as indicated by *TOEFL ITP*[®] test scores?

4. How did the usage of the supplementary materials *Pathways to Academic English* and *the Official Guide to the TOEFL ITP Assessment Series* affect student learning?

3. Methods

All first-year students at Tohoku University generally take the *TOEFL ITP*[®] test before classes begin in April and again towards the middle of the second semester. However, due to the COVID-19 crisis, social distancing policies were implemented at Tohoku University for the first semester of 2020, and students were unable to take the *TOEFL ITP*[®] test in April. Instead, many, but not all, first year students took the *TOEFL ITP*[®] test in mid-August, after the first semester had already been taught. This study utilized these results, as there was a big enough sample size to make general statistical predictions, but unfortunately, due to the fact that there was only a post-treatment test, we could not measure how much improvement was influenced by the teaching of core skills and other factors. However, the general results of this test could be correlated to *TOEFL ITP*[®] scores to offer some predictions about what sorts of students tended to get higher *TOEFL ITP*[®] scores and if higher ability in some or all core skills correlated with better *TOEFL ITP*[®] scores. Positive correlations between *TOEFL ITP*[®] scores and student factors could provide insight into how teachers might improve student learning, and positive correlations between *TOEFL ITP*[®] scores and core skills tests would imply that having high ability on the core skills leads to better *TOEFL ITP*[®] scores, which would underscore the importance of students learning them. *TOEFL ITP*[®] scores and sub-section scores

were treated as nominal data due to their continuous nature and standardized results.

A student survey about English A1 and English B1 classes was taken at the end of the first semester in 2020. It asked a range of questions about each class, including how their class was conducted online, which of the core skills they had learned before entering the university, which of the core skills they had gained confidence in due to their English class, the reason that they felt they didn't improve at the core skills (if they felt they hadn't), how useful they found *Pathways to Academic English* or *the Official Guide to the TOEFL ITP Assessment Series* in their English classes, and whether or not they used these texts outside of class for self-study. Students provided their student numbers so that their data could be matched to *TOEFL ITP*[®] scores. We had hoped to extrapolate what happened in individual classes from multiple student responses, but because many of them were very different, we simply used the responses from students taken at face value of their answers. Whether or not students had learned core skills before the class, or gained confidence in them due to the class was treated as ordinal data, with students responding that they hadn't learned or gained confidence in any core skills being coded as "0," students responding that they had learned or gained confidence in some of the core skills, but not all of them, being coded as "1," and students responding that they had learned or gained confidence in all of the core skills as "2." While it could be helpful in the future to look at each core skill individually, rather than as a set, there were not enough responses in the current data set to look at each core skill individually while also looking at other variables in a single mathematical model. The reasons that students didn't learn the core skills were treated as nominal data, and divided into three categories based on the responses: my teacher didn't teach the core skills, there were too many core skills

and/or too much information to learn, and other reasons.

Questions related to the how useful the students found the texts were taken as ordinal data: (very helpful = 3, helpful = 2, not helpful = 1, I did not use the book = 0), and the questions regarding whether or not they used them outside of class for self-study was treated as biserial nominal data. A multiple regression analysis was then utilized to determine if any of the survey questions were positively associated with higher *TOEFL ITP*[®] scores overall or categorically (i.e. with scores on the reading, listening or grammar sections). However, due to a lack of students who responded specifically to the questions about the textbooks and who also took the *TOEFL ITP*[®] test, the questions regarding teaching and learning of core skills were analyzed separately from those regarding textbook usage.

The results of the students who took the end-of-semester English A1 and B1 core skills tests were also used to determine who closely core skill ability was correlated to academic English ability, as measured by the *TOEFL ITP*[®] assessment. The core skill ability test scores were treated as nominal data due to their continuous nature and standardized results. This data was analyzed separately from the survey data due to the low response rate and different nature of the data. English A1 core skills test overall scores and the scores of each individual objective (vocabulary building, quickly recognizing a text's key information, and quickly identifying a text's organization and logic) were checked for correlation to both overall *TOEFL ITP*[®] scores and the Reading Comprehension Section scores using a Spearman's Rank Order Correlation Test. English B1 core skills test overall scores and the scores of each individual objective (taking notes while listening, skills for becoming a successful listener, and verbal expressions in academic settings) were checked for correlation with overall *TOEFL ITP*[®] scores and

the Listening Comprehension Section scores utilizing spearman’s correlation test.

4. Results

4.1 Descriptive Statistics of Note

Of the 2,427 first year students at Tohoku University in the 2020 academic year, 843 participated in the survey, 238 took the A1 core skills test, 272 took the B1 core skills test, and 1,108 took the *TOEFL ITP*[®] test in August, 2020. Unfortunately, not all of the students who took the test filled out the survey or took the core skills tests, so the results of the studies below are based on the data available. Furthermore, it should be noted that it seems some students did not receive instruction based on the new 2020 English curriculum. This was evidence by the fact that 207 (37%) of students surveyed who did not gain complete confidence in A1 core skills, and 183 (37.6%) of students surveyed who did not gain complete confidence in B1 core skills, selected the reason for not having gained skills as “my teacher did not teach the core skills or do anything to help me learn them.” Furthermore, 46.8% of students surveyed stated that *Pathways to Academic English* was not used at all in their A1 class, and 56.9% said it was not used at all in their B1 class. Similarly, 40.7% said *the Official Guide to the TOEFL ITP*[®] *Assessment Series* was not used in their A1 class and 51.6% said it was not used in their B1 class. Thus, it seems that somewhere between one-third and one-half of Tohoku University staff did not attempt to follow the curriculum closely.

4.2 Analysis of English A1 Core Skills

Table 1 shows the results of the spearman’s correlation test for the English A1 core skills test and the *TOEFL ITP*[®] test. It explores overall scores as well as the scores of individual English A1 objectives core skills and the scores of the Reading Comprehension Section.

Table 1. Correlation between A1 Core Skills and *TOEFL ITP*[®] Scores

	Overall	Vocab.	Skim / Paraph.	Connot./ Infrnc.
TOEFL Score	$r^2=.399,$ $p<.001$	$r^2=.253,$ $p=.009$	$r^2=.323,$ $p=.001$	$r^2=.23,$ $p=.018$
Reading Score	$r^2=.382,$ $p<.001$	$r^2=.221,$ $p=.023$	$r^2=.296,$ $p=.002$	$r^2=.254,$ $p=.009$

The results show that overall, the better that students did on the English A1 core skills test, the better they did on the *TOEFL ITP*[®] in general, as well as on the Reading Comprehension Section. Furthermore, each individual English A1 objective seemed to share these same basic correlations. Finally, the results seem to suggest that the questions designed to test skimming and scanning ability as well as paraphrasing recognition were most correlated to overall *TOEFL ITP*[®] scores, and the reading scores more specifically, followed by questions related to connotative meanings and inferences, then by vocabulary-related questions.

4.3 Analysis of English B1 Core Skills

Table 2 shows the results of the spearman’s correlation test for the English B1 core skills test and the *TOEFL ITP*[®] test. It explores overall scores as well as the scores of individual English B1 objectives core skills and the scores of the Listening Comprehension Section.

Table 2. Correlation between B1 Core Skills and *TOEFL ITP*[®] Scores

	Overall	Note-taking.	PVs and idiomatic	Interog/ Opinion
TOEFL Score	$r^2=.428,$ $p<.001$	$r^2=.227,$ $p=.004$	$r^2=.35,$ $p<.001$	$r^2=.318,$ $p<.001$
Listening Score	$r^2=.549,$ $p<.001$	$r^2=.279,$ $p<.001$	$r^2=.463,$ $p<.001$	$r^2=.394,$ $p<.001$

The results show that overall, the better that students did on the English B1 core skills test, the better they did on the *TOEFL ITP*[®] in general and the Listening Comprehension Section. Each individual English B1 objective was also correlated to the scores, showing even stronger correlations to the Listening Comprehension Section than the English A1 core skills did to the Reading Comprehension Section. It should also be noted that the highest correlation was with the core skills of “phrasal verbs” and “idiomatic expressions,” but this was one of the sections that students performed poorest in. Therefore, these areas are likely an area in which Tohoku University students currently need a lot of improvement.

4.4 Analysis of Survey Results Regarding Teaching and Learning

Table 3 shows the results of the multiple regression analysis for survey questions regarding core skill learning and the *TOEFL ITP*[®] scores.

Table 3. Correlation between Survey Questions Regarding Learning and *TOEFL ITP*[®] Scores

Questions	Beta	P-Value
Did you learn A1 core skills before your A1 class?	.023	.687
Did you learn B1 core skills before your B1 class?	-.014	.864
Did you gain confidence in the A1 core skills?	.178	.02*
Did you gain confidence in the B1 core skills?	-.01	.887
Why didn't you gain confidence in A1 core skills?	.029	.699
Why didn't you gain confidence in B1 core skills?	-.132	.05*

According to the results, students reporting having learned core skills before their classes had no effect

on their *TOEFL ITP*[®] scores. However, students who felt that they had gained confidence in their English A1 core skills due to their English courses outperformed those who reported not having learned any. Furthermore, students who specifically gave the reason for not learning English B1 core skills as “my teacher didn't teach them to me” performed significantly worse than students who gave other reasons. This is visualized in Figure 1.

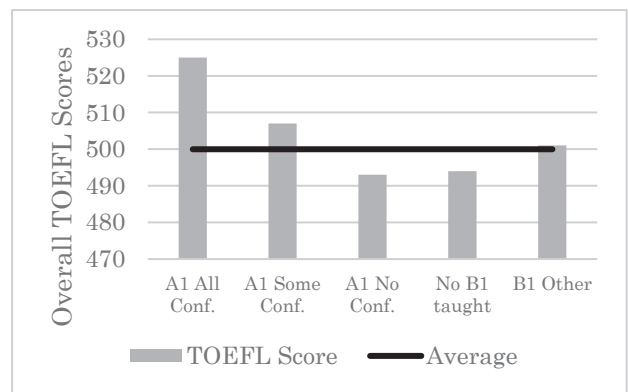


Figure 1. Comparison of *TOEFL ITP*[®] Scores and Students Claiming Gains in Confidence in Core Skills

4.5 Analysis of Survey Results Regarding Textbook Usage

There was little variance in the responses of students who answered survey questions about textbook usage and also took the *TOEFL ITP*[®] test, so we were unable to make any sort of direct correlation analysis between these two. Instead, we used an ordinal regression analysis to see how correlated students' opinions of the usefulness of the textbooks to their A1 and B1 classes was with their likelihood to claim that they had learned core skills. The results are presented in Table 4, below.

The results of this analysis revealed that students who found *Pathways to Academic English* and *the Official Guide to the TOEFL ITP Assessment Series* helpful or very helpful in their A1 and B1 classes were generally more likely to claim that they gained confidence in the core skills. Students who found the texts unhelpful or who did not use these texts in

Table 4. Correlation between Student Feelings towards Textbooks and Having Learned Core Skills

Student Opinion on Usefulness	Gains in A1 core skills	Sig.	Gains in B1 core skills	Sig.
<i>Pathways</i> = Very Helpful	+86.3%	p<.001*	+60.3%	p<.001*
<i>Pathways</i> = Helpful	+45.3%	p=.106	-01.4%	p=.001
<i>Pathways</i> = Unhelpful	-64.9%	p<.001*	-115.4%	p<.001*
<i>Pathways</i> = Didn't use	-06.7%	p=.001*	-101.6%	p=.001*
<hr/>				
<i>TOEFL Guide</i> = Very Helpful	+86.3%	p<.001*	+60.3%	p<.001*
<i>TOEFL Guide</i> = Helpful	+34.8%	p=.086	+26.3%	p=.007*
<i>TOEFL Guide</i> = Unhelpful	-09.4%	p=.028*	-43.5%	p=.007*
<i>TOEFL Guide</i> = Didn't use	-23.2%	p<.001	-05.6%	p=.177

their classes were in general, less likely to have claimed that they gained confidence in the core skills. However, it is unclear why students found the books unhelpful; this could be due to a problem with the textbooks or to the fact that the class was simply not designed around these materials.

5. Discussion and Conclusion

Based on the results above, the following conclusions can be made regarding the core skills for English A1 and B1 courses in the first semester of 2020 at Tohoku University.

1. The English A1 core skills were generally appropriate for academic English teaching goals. This is evidenced by the fact that the English A1

core skills tests were correlated to the *TOEFL ITP*® scores overall and the reading scores in particular. This is further suggested by the fact that students who claimed that they gained confidence in these core skills due to their English A1 class generally performed better on the test. While there is no hard pre- and post-test data to confirm that teaching them does indeed improve *TOEFL ITP*® test scores, it is reasonable to guess that improving these skills in first-year students will increase their scores in general.

2. The English B1 core skills were generally appropriate for academic English teaching goals. First, the scores of the English B1 core skills tests were highly correlated to both overall *TOEFL ITP*® scores and the listening scores in particular. Furthermore, students who claimed that they didn't gain confidence in their core skills test because their teacher did not teach them did far worse on the *TOEFL ITP*® test than their peers. Taken together, these results suggest that helping students to improve in the English B1 core skills will boost overall *TOEFL ITP*® scores and the listening scores, specifically. However, as with the English A1 core skills, there is currently a lack of pre- and post-test data to know this for sure.

3. The staff at Tohoku University has the ability to create English A1 and B1 core skills tests that are reasonably correlated to the *TOEFL ITP*® test and could be used formatively to help students gauge their abilities in the future. We recommend that similar core skills tests be created in the future and implemented as mandatory end-of-semester tests to help students realize their skill level and what areas they need to improve in before taking their second *TOEFL ITP*® test, and to help teachers monitor the effect that their teaching is having on students' academic English abilities.

4. The use of *Pathways to Academic English* and the *Official Guide to the TOEFL ITP Assessment Series* can have positive impacts on the learning of core skills if used appropriately. This is evidenced by the fact that students who found the book very helpful or somewhat helpful claimed to have gained more confidence in the core skills. However, it should be noted that while students who didn't find the books helpful were less likely to have claimed that they gained confidence in the core skills, they did not give a reason why. If the reason was because the class did not use the books very often, or the course content was not related to the books, it is reasonable to assume that the students did not adequately learn the core skills due to how the class was set up, rather than due to the contents of the books themselves. However, if the reason was due to the content of the books, e.g. the information wasn't organized well or there was too much to remember, then we should suggest rewriting or restructuring parts of the books. However, this is not clear based on the results of this survey.

Based on the results and conclusions above, we can offer a number of recommendations to the English educators at Tohoku University. First, we recommend the implementation of common end-of-semester core skills tests for English A1 and B1 classes, as they can be used formatively to help guide both teachers and students. Second, we recommend that teachers make concerted efforts to teach the core skills. They seem to be highly correlated to academic English skills and students who claimed they were taught them tended to better on the *TOEFL ITP*[®] test than those who were not. Furthermore, the only way that we can tell if the new curriculum is really working to improve academic English skills is if all teachers follow it. Third, we recommend that data be continually taken to gauge the impacts of the curriculum and any

changes on learning outcomes. Specifically, pre- and post-test *TOEFL ITP*[®] data should be used in the future to discover what is and is not working to improve academic English ability. Furthermore, survey data on specific aspects of the textbooks should be taken, and *Pathways to Academic English* should be continually improved based on student needs. Finally, due to the fact that many teachers did not attempt to teach core skills and several students said there was too much information to learn in a single semester, we recommend amending the core skills so that there are fewer in a single semester.

Notes

- 1) There is no speaking or writing section on the *TOEFL ITP*[®] test that students took. However, these skills are needed by Tohoku University students and are somewhat correlated to the specific skills assessed on the *TOEFL ITP*[®] test.

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