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ENABLING ENGLISH CLASSROOM DISCOURSE
BY NON-NATIVE INSTRUCTORS

Noriaki Katagiri

片桐 徳昭
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Abstract

1. Purpose

The aim of this dissertation is to help minimize unproductive Japanese English education, and enhance English language classroom discourse by non-native English language instructors (NNIs). We planned 3 projects in order to achieve this goal: 1) examining factors that facilitate communicative language teaching (CLT), 2) developing classroom corpora and examine native and non-native English language instructor (NI and NNI) vocabulary item similarities and differences, and 3) utilizing classroom video corpus to train pre-service teachers. The first 2 projects were preliminary ones that would lead to the final project (Project 3).

2. Literature

Literature reveals that there are several constraints that hinder the use of communicative language teaching method and also conditions that facilitate such teaching style by NNIs. The past course of studies to encourage NNIs to implement CLT have not been as productive as the government had expected, and the same results are doomed to recur unless countermeasures are taken. The use of classroom teacher corpora (written text) proved to be effective for novice language teachers, and using audio would have profited the teacher trainees further. However, developing such corpora takes time and resources to achieve, and little research has been done so far.

3. Project 1: Identify enabling factors of CLT

Project 1 asked NNIs in all the senior high schools in Hokkaido, retrieving responses from approximately 34% of all the senior high schools, and 19% of all the NNIs. Sequential equation modeling revealed factors to facilitate NNIs to implement CLT in the relationship between NNIs' teaching aims and the teachers' perception of CLT. Write-in answers from the participants revealed expectations and requests of the NNIs toward their students, assistant language teachers (NIs), and English education in Japan.

4. Project 2: Examine NI-NNI vocabulary differences and similarities

Project 2 analyzed 3 NIs and 1 NNI along with 5 NNIs that served as role models recommended by the government. (They used English as a means of instruction and content during their lessons.) Analyses with a benchmark wordlist and a written classroom English corpus revealed core vocabulary items of NI and NNI, their respective lexical types with high keyness that can be attainable for NNIs (and NIs).

5. Project 3: Use classroom corpora in training pre-service teachers

Project 3 trained 25 preservice English teachers in a university with the classroom corpora. It measured quantitatively the participants' disfluency elements, and feedback elements besides spoken tokens. The pretest and the posttest results show significant differences in the participants' use of repeats, follow-ups and their spoken tokens per unit time. The written questionnaire collected participants' comments on the effectiveness of the classroom corpus training. NNIs can learn to be relatively more fluent and communicative in their classroom utterances through the use of classroom corpora.

6. Conclusion and discussion

Through the findings of a series of three projects, NNIs will be encouraged and trained to use more English language as a means of instruction and content, and administrators will be more skillful in organizing English training programs for both preservice and in-service novice teachers. Although my projects may lack the quantity of NIs and NNIs transcribed, the research methods and findings will be of benefit to those involved in English language education and human speech processing community.
Abstract in Japanese (日本語要旨)

1. 目的と重要性

本博士論文の目的は日本における英語教育の「非生産性」を最小化することである。ここで述べる非生産性とは英語で表現する"productive"から派生した"unproductive"という単語の直訳である。"productive"とは英語を発話したり、書いたりする語学の技能を描写する時に用いられる表現である。よって、「非生産性」とは英語を話したり書いたりすることがままならない学習者を産出している英語教育のことを述べている。つまりどのようにしたらこれまでのような日本人母語話者英語教師の教室での英語使用の少なさが改善されるのだろうかという問に対する改善策を探る研究が目的となる。

この目的達成のために3つの研究を行った。得られた知見を日本人母語話者英語教師が授業をする上で、教授内容であると同時に教授のための手段としての英語の使用が促進され訓練される有効な手段を提示することを目指した。これにより英語教育行政や英語教師教育(教育実習生や現職の教員、特に英語を使って教授することが不慣れな非母語話者英語教師に対して)の促進が期待されることが本研究の重要性である。

2. 文献調査

文献研究で、以下の概要が判明した。1) 英語非母語話者教師の英語使用は文部科学省が期待するほど高くはなく、コミュニケーションな英語教育を阻害する要因が複数存在し、2) それらは教師の内因や、生徒たちや、教育現場での外的要因が関わっており、3) そのため、文部科学省が打ち出す、「新」学習指導要領は改訂ごとに「生産性」側面において失敗が予想され、4) 英語母語話者に頼らず非母語話者の英語教授に頼らざるを得ない状況では、英語非母語話者と母語話者との比較による支援が一つの方策として考えられ、5) 教室コーパスを用いた教師教育の方法が有効であるが、前例は少なく、研究すべき点が多いということである。

3. 研究1: コミュニケティブな英語教育を可能にする要因の特定

研究1は北海道の全高等学校の英語非母語話者教師にアンケート調査を行った。5段階リッカート法による質問を42問、そして3問の記述回答質問を加えた。北海道の全高校数に占める回収率は約34%、また、全英語非母語話者教師数に占める回収率は約19%であった。文献調査から4つの潜在変数を設定した(「V1:教育目標と教授方法」、「V2:生徒に対する期待」、「V3:教育環境」、「V4:コミュニケーション可能な教授実現可能性」)。5段階の質問を各々の潜在変数の測定変数として構造式(モデル)を推定し、構造方程式の解が「良い適応度」を示すようにモデルを設定・同定・推定・適合度検定・再設定した。また、記述式の回答は各質問に対し、回答内容により複数の分類をし、度数分布にして分析を行った。

分析の結果、「良い適応度」を示すモデルの存在が判明した。潜在変数V1→V4に対する相関関係(標準解で0.78)である。この中で、V1に関して相関の高かった測定変数は「日本語を使わないこと(0.69)」、「英語による指示(0.73)」、「英語で生徒とコミュニケーションをとる(0.73)」、「学習者同士でペアワークを英語で行う(0.72)」であり、V4に関して相関の高かった測定変数は「オープンイングリッシュの授業をする自信(0.59)」、「生徒の実力に合った英語を用いる(0.75)」であった。記述回答に関しては3分野(生徒・外国語指導助手・英語教育全般)に対する要望を求める。回答中1)生徒に対する期待や要望に関する項目では「英語実習に対するやる気を持って欲しい」という回答が圧倒的に多く(4割近く)、2)外国語指導助手(ALT)に対する期待や要望に関する項目では「英語教育に対し熱意をもって欲しい」という回答が圧倒的に多く(4割近く)、3)英語教育全般に対する期待や要望に関する項目では「時間を余裕」「財政援助」「大学入試の変革」「能力差の少ない小人数教育」を求める声があるということが判明した。
4. 研究2：英語母語・非母語話者の語彙の相違点と類似点

研究2は英語母語話者・非母語話者教師の教室での語彙調査を行い、その類似点と相違点を探った。英語による授業実現の方向性を探るために英語母語話者教師(NI)と非母語話者教師(NNI)の使用語彙の比較を語彙項目単位で調査した。

調査には3名のNIと1名のNNIの発話コーパスを用い、文部科学省推奨の5名のNNIの語彙授業の書き起こし、授業英語のサブコーパス、JACET 8000という基本語彙リストを語彙項目類度の比較指標として用い、NIの使用語彙とNNIの使用語彙の比較を行った。1名のNNIに関しては、比較した文科省からの5名のNNIの英語授業の書き起こし、教室英語のサブコーパスを比較材料とし、JACET 8000という基本語彙リストを語彙項目頻度の比較指標として用い、NIの使用語彙とNNIの使用語彙の比较を行った。

1名のNNIに関しては、比較した文科省からの5名のNNIの英語授業の書き起こし、教室英語のサブコーパスを比較材料とし、JACET 8000という基本語彙リストを語彙項目頻度の比較指標として用い、NIの使用語彙とNNIの使用語彙の比較を行った。

調査にあたり、NI群とNNI群が共通する話葉項目(教室英語の核語彙)が存在し、教室英語の核語彙と呼べる語彙項目の存在がわかった。反対に、NI特有の語彙項目やNNI特有の語彙項目の存在も確認され、これらの語彙項目は授業における役割の違いによるものであるということが示唆された。

また、NI群とNNI群に共通する話葉項目(教室英語の核語彙)が存在し、教室英語の核語彙と呼べる語彙項目の存在がわかった。反対に、NI特有の語彙項目やNNI特有の語彙項目の存在も確認され、これらの語彙項目は授業における役割の違いによるものであるということが示唆された。

本研究より得られる知見は、NNIはNIと共通する教室英語の核語彙を持っているので、NIと違った話葉項目を用いて指導に当たっている訳ではないこと。NIとNNIの話葉項目の差は役割の違いなので、ティームティーチングに頼らない授業をNNIが行う場合には、NI特有の話葉項目を参考に授業中の発話を検討すると、コミュニケーション的な授業が可能になる。NIIはNNIの話葉項目を参考に教科書教示的授業を行えることが可能になる。それぞれの話葉項目の使用頻度に関しては急低下を示すことが判明した。

5. 研究3：教室コーパスを用いた教育実習生に対する指導効果の研究

研究3は教育実習を控えた学生に対して教室ビデオコーパスを用いた指導を行い、事前事後で模擬授業の発話がどのように改善されるかを調査した。調査には大学生25名が参加した。まず、中学校の英語のテキストを用い、自分で立てた教案をもとに5人一組で模擬授業を英語で実施した(プレテスト)。授業はビデオ撮影をし、後に自己の映像・録音をもとに書き起こしをし、教室談話タグをつけさせた。その後、以下のような措置を講じた。

1）書き起こしにコメントを施し英語表現の工夫を指導、2）教室ビデオコーパスを用いながらそのテキストを読ませ授業方法の解説。その後、同じグループで再び模擬授業を実施し、ビデオ撮影をした(ポストテスト)。プレ・ポストテストとも書き起こしをしたものに、非流暢さを示す4つのタグ(「言い淀み(filler)」、「繰り返し(repeat)」、「言い換え(revision)」、「言い直し(start)」)と教師室談話タグを付与し、その要素を抽出し、総発話数とともに定性的に分析を行った。その結果、繰り返しの回数・フィードバックの発話と単位時間内での発話量に有意な差があることが判明し、教室ビデオコーパスの教育実習に与える有効性が確認された。

6. 結論

3つの研究により、以下のことが判明した。(1)英語非母語話者教師がCLTを実施する相関の高い因子が存在する。(2)英語母語話者・非母語話者教師は教室で決められた役割に基づいて生徒に発話しており、これらは相補的側面が強いが、両者がともに達成可能なものである。(3)英語非母語話者教師は教室コーパスを用いた指導・訓練で生徒に対するフォローアップが有意に増し、単位時間の発話数が増える。以上の知見から、母語の深いNNIや教職に赴く前の学生たちに英語での授業が出来るように支援することが期待でき、これからの日本の中等教育において、英語を使って授業が出来るNNIの育成に寄与することが考えられる。また、本研究は日本人英語母語話者教師が授業をする上で、英語を教授内容であると同時に教授のための手段としてもよりその使用が促進できるように訓練する有効な一手段を提示するものである。
Executive Summary

1. Introduction

Japanese English education has been criticized for uncommunicative ways to teach English to learners of English (students). Although the government mandates NNIs use the target language, i.e., English (L2 hereafter) in conducting lessons, its nation-wide survey estimated that NNIs who have L2 skills that guarantee L2 language lesson feasible amounted to less than half of the entire number of all the NNIs in Japan.

This study seeks measures to enable non-native English language instructors (NNIs) to use classroom English discourse more often and more fluently. The ultimate aim is to improve the unproductive Japanese English language educational situations in terms of communicative language teaching (CLT). We will diagnose the problems with respect to NNIs themselves and the environment they are in, i.e., their workplace, which includes their coworkers, students they teach, and school chores they are obliged to do that are subject-unrelated.

Our study consists of 3 scopes that are represented by 3 projects respectively:

(1) identifying factors that facilitate CLT,

(2) assembling non-native English language instructor classroom corpora, proposing analysis methods, and investigating NI and NNI vocabulary differences, and

(3) examining the effectiveness of non-native English language instructor training using classroom corpora.

The 3 projects constitute a research that seeks to answer the question as to enhance NNIs' classroom discourse in English. Figure 1 shows the entire project research areas and that cover 3 projects' respective overviews.
Figure 1. Project overview.

The figure above shows the doctoral project overview. 3 projects constitute the entire doctoral project. Each project is enclosed by dotted lines shaped differently according to their research coverage and relationships with the other projects. Project 1 covers the entire research area (shown as in the largest dotted rectangle) that consists of research subjects (English language learners and their instructors) and their objectives. Project 2 serves as a basis for Project 3 in that it scrutinizes the NI-NNI vocabulary similarities and differences to be used in the corpus teacher training in the following project (Project 3). A dotted large left arrow (that is inside Project 1’s dotted line, leading to Project 3’s dotted line) designates Project 2’s role in the doctoral project. Project 3 examines whether corpus building methods and their findings in Project 2 will be effective in teacher education in such a way as to facilitate communicative language teaching (CLT).

2. Literature

We review literature based on the 3 scopes discussed in the previous section; (1) factors to facilitate CLT, (2) NI and NNI classroom corpora, and (3) application of classroom corpora to teacher education. The literature review on our first scope reveals that there are factors that might affect NNIs’ CLT feasibility such as teacher beliefs and teaching/working conditions. Previous studies on our second scope concerning NI-NNI speech give us grounds for developing classroom corpora and the
necessity to examine them qualitatively and quantitatively, not much research having
been conducted. The review on our final scope that is related to the application of
classroom corpora to initial teacher education proved to be effective in enabling novice
teachers to acquire discourse markers. However, it needs improvement in that the
preceding studies would have been more successful with the use of audio-visual
materials besides written texts.

3. Identify enabling factors of CLT (Project 1)

3.1 Research questions

Based on the literature, we posed the following research question, “What factors
predict CLT feasibility?” We hypothesized that there are at least 4 variables
surrounding teachers that relate to the likelihood of CLT's success in Japanese high
schools (HSs): (V₁) the teachers' teaching goals and methods, (V₂) the teachers'
assessment of their students, (V₃) the teachers' working conditions, and (V₄) the
teachers' perception of CLT feasibility. The relationship between these 4 variables and
how they predict the likelihood of CLT's success are major interests in Project 1. These
variables are not necessarily mutually independent. Do 4 variables (V₁ through V₄)
predict CLT feasibility? We consider our research variables latent and the
questionnaire items measured variables.

3.2 Survey

In August and September 2010, we sent survey questionnaires to all public high
schools and private high schools in Hokkaido (N = 310), asking for the cooperation of
up to 3 teachers of English language whose native language is Japanese. We did not
ask for any specific individuals to participate. The survey questionnaire was written and
answered in Japanese, and consisted of 47 multiple-choice questions with choices given
on a Likert scale of 5, plus 3 open-ended questions that asked for written responses.
At the time of the survey, there were approximately 1670 such teachers on Hokkaido Island. Hence we were asking for answers from 930 unspecified teachers out of approximately 1670.

3.3 Results

We tested reasonably possible combinations of the 4 variables by specifying the models using sequential equation modeling (SEM) that might show causal relationship between the variables. Tables 1 shows the SEM model fit indices.

Table 1

*Fit Indices for SEM Models*

<table>
<thead>
<tr>
<th>Model (Path coefficient)</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMSEA [90% CI]</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>$V_1 \rightarrow V_4$ (0.78)</td>
<td><strong>0.95</strong></td>
<td><strong>0.91</strong></td>
<td><strong>0.91</strong></td>
<td><strong>0.92</strong></td>
<td><strong>0.94</strong></td>
<td><strong>0.07</strong> [.05, .09]</td>
<td><strong>0.05</strong></td>
</tr>
<tr>
<td>$V_2 \rightarrow V_4$ (0.38)</td>
<td><strong>0.91</strong></td>
<td>0.75</td>
<td>0.82</td>
<td>0.69</td>
<td>0.83</td>
<td>0.20 [.17, .24]</td>
<td><strong>0.13</strong></td>
</tr>
<tr>
<td>$V_3 \rightarrow V_4$ (0.44)</td>
<td>0.85</td>
<td>0.79</td>
<td>0.42</td>
<td>0.35</td>
<td>0.46</td>
<td>0.12 [NA, NA]</td>
<td><strong>0.10</strong></td>
</tr>
<tr>
<td>$V_2 \rightarrow V_1$ (0.58)</td>
<td>0.89</td>
<td>0.82</td>
<td>0.83</td>
<td>0.81</td>
<td>0.85</td>
<td>0.11 [.10, .13]</td>
<td><strong>0.09</strong></td>
</tr>
<tr>
<td>$V_3 \rightarrow V_1$ (0.59)</td>
<td>0.84</td>
<td>0.80</td>
<td>0.56</td>
<td>0.57</td>
<td>0.62</td>
<td>0.10 [NA, NA]</td>
<td><strong>0.09</strong></td>
</tr>
</tbody>
</table>

*Note.* Model $V_X \rightarrow V_Y$ represents causal relationship where $V_X$ and $V_Y$ mean exogenous and endogenous variables respectively. Index values that clear the cutting point are shown in boldface. GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = Bentler-Bonett index or normed fit index, NNFI = Non-Normed Fit Index or Tucker-Lewis index, CFI = Bentler's comparative fit index, RMSEA = root mean square error of approximation index, CI = confidence interval, NA = not available, SRMR = standardized root mean square residual.

Table 1 seems to suggest that “Model $V_1 \rightarrow V_4$” is a “good model.” Solving the equations in this model yielded answers, that is, standardized coefficients between variables (Figure 2).
Figure 2. Good model fit ($V_1 \rightarrow V_4$ SEM/LV).

The model $V_1 \rightarrow V_4$ had the best goodness of fit index (GFI) value among the models we considered. $V_1$ showed a reasonable correlation with measured variables 2 (use of no Japanese), 3 (use of English instructions), 5 (using English to communicate) and 6 (pair work in English) shown as rectangles with their standardized correlation coefficient values below the numbered rectangles. $V_1$ showed a moderate correlation with measured variables 1 and 2, and no correlation for measured variables 4 (use of textbook CD) and 7 (team-teaching). $V_4$ showed a reasonable correlation with measured variables 24 (confidence in all English lessons) and 25 (able to adjust to students' L2 skills).

4. Examine NI-NNI vocabulary differences and similarities (Project 2)

4.1 Research questions

Project 2 posed the following research questions:

(1) Do the classroom utterances of NIs and NNIs differ in terms of vocabulary size?

(2) What vocabularies do NIs and NNIs share?
(3) What characterizes their different vocabularies?

(4) What can NNIs learn from NIs, and vice versa?

(5) How can we encourage and justify the use of English by NNIs in classrooms of English as a foreign language where NIs participate only on limited occasions?

4.2 Materials and methods

We compared NI and NNI speech using the following 3 materials: (1) transcriptions of English spoken by 3 NIs and 6 NNIs in a language classroom, (2) a collection of classroom English phrases, and (3) a wordlist created from large bodies of written and spoken English.

After transcribing NI, NNI, and CD speech, utterances were separated into lexical tokens. Lexical tokens that were derived forms were grouped into lexical types.

We analyzed the lexical tokens in 3 ways:

(1) divided NI, NNI, and CE tokens and types into sets based on their commonality,

(2) compared NI and NNI tokens and types against the benchmark wordlist with regards to frequency rank, and correlation coefficients, and

(3) compared NI and NNI types by first normalizing frequencies of NI and NNI tokens, identifying NI and NNI types with high keyness, i.e., tokens that occur with unusually high frequency.

4.3 Results

We found vocabulary items common to both NIs and NNIs. We also extracted lexical types with high keyness for both the NIs and the NNI. Table 2 shows samples of lexical types with high keyness for the NIs and the NNI.
Table 2

Samples of Lexical Types with High Keyness
Lexical types are sorted by their frequency relative to their respective maximum frequency values (NI = 840, NNI = 4,475)

<table>
<thead>
<tr>
<th>NI Type</th>
<th>$f$ [dB]</th>
<th>NNI Type</th>
<th>$f$ [dB]</th>
</tr>
</thead>
<tbody>
<tr>
<td>be</td>
<td>0.00</td>
<td>OK</td>
<td>0.00</td>
</tr>
<tr>
<td>you</td>
<td>-2.54</td>
<td>this</td>
<td>-5.17</td>
</tr>
<tr>
<td>and</td>
<td>-2.88</td>
<td>your</td>
<td>-6.92</td>
</tr>
<tr>
<td>so</td>
<td>-4.63</td>
<td>look</td>
<td>-8.18</td>
</tr>
<tr>
<td>I</td>
<td>-4.76</td>
<td>page</td>
<td>-8.26</td>
</tr>
<tr>
<td>it</td>
<td>-5.06</td>
<td>all</td>
<td>-8.43</td>
</tr>
<tr>
<td>of</td>
<td>-6.76</td>
<td>at</td>
<td>-8.49</td>
</tr>
<tr>
<td>that</td>
<td>-6.99</td>
<td>will</td>
<td>-8.66</td>
</tr>
<tr>
<td>go</td>
<td>-7.54</td>
<td>please</td>
<td>-8.79</td>
</tr>
<tr>
<td>not</td>
<td>-7.78</td>
<td>on</td>
<td>-8.96</td>
</tr>
<tr>
<td>he</td>
<td>-8.38</td>
<td>word</td>
<td>-9.14</td>
</tr>
<tr>
<td>yes</td>
<td>-8.79</td>
<td>right</td>
<td>-9.36</td>
</tr>
<tr>
<td>say</td>
<td>-8.99</td>
<td>question</td>
<td>-9.41</td>
</tr>
<tr>
<td>or</td>
<td>-9.56</td>
<td>up</td>
<td>-9.49</td>
</tr>
</tbody>
</table>

4.4 Conclusion

This project portrays how spoken classroom English by NIs and NNIs are similar or/and different because NNIs far outnumber NIs in Japanese secondary education (approximately 15 to 1), thus at least some justification is necessary for NNIs to English in their classrooms even without NIs’ presence. Classroom corpora were developed and analyzed in order to show what lexical items NIs’ and NNIs’ use in English language lessons. Results show that NIs and NNIs share core classroom English vocabulary items, and that they have their respective lexical items that are considered to be role-dependent in the co-teaching lesson style.
5. Use classroom corpora in training preservice teachers (Project 3)

5.1 Research questions

We posed the following research questions, building upon findings that classroom language corpora are effective in language teacher development.

(1) To what extent do language classroom corpora reduce English language disfluencies, and

(2) improve the teachers' evaluation and follow-up interactions with students?

(3) How does the classroom corpus instructor training benefit instructors?

5.2 Materials and methods

25 Japanese college seniors seeking certification as English language teachers participated in our project. These students were taking the same series of teacher-training courses, and were scheduled to start their practice teaching in several weeks. Participants experienced the following chronological sequence:

1. Participants joined with four other participants to form five groups of five participants each.

2. In a regular college classroom, each participant gave a 5-to-10-minute English language lesson at the junior high school level to the four other participants playing the role of students. The instructor's and students' behavior was video-recorded. We refer to this as the pretest lesson.

3. Participants viewed videos of the lesson they taught, transcribed and annotated all speech within their pretest lessons.

4. Participants received transcriptions and annotations corrected by us, plus instructional comments on how to improve their teaching with regards to use of spoken language.

5. Participants read transcriptions from classroom corpora, and viewed video recordings from a classroom corpus.
6. Participants repeated step 2 above. We refer to this as the posttest lesson.

7. Participants answered a survey that included introspective questions on their performance.

We annotated the transcribed speech, and examined the participants' mock lesson speech within the scope of disfluency, classroom discourse, and the number of spoken tokens. We interpreted the annotated transcriptions through the following procedure in order to examine the transcribed speech.

1. Extract the participants' speech that was annotated with the instructor tags.

2. Analyze quantitatively the number of occurrences and spoken tokens for each disfluency element, and classroom discourse element in the pretest and the posttest through paired two-sample t-tests.

3. Calculate the participants' speech rate in the pretest and the posttest in which we normalize the length of teaching time in seconds, and compare the number of total spoken tokens in the pretest and the posttest.

5.3 Results

Table 3 shows descriptive summary of spoken tokens and speech time duration in the pretest and the posttest.

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of instructors*</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Number of spoken tokens (s_i)</td>
<td>7344</td>
<td>8759</td>
</tr>
<tr>
<td>Mean s_i</td>
<td>319.3</td>
<td>398.1</td>
</tr>
<tr>
<td>Standard Deviation of s_i</td>
<td>123.9</td>
<td>111.6</td>
</tr>
<tr>
<td>Mean teaching time in seconds</td>
<td>556</td>
<td>519</td>
</tr>
<tr>
<td>Mean spoken tokens per minute</td>
<td>34.9</td>
<td>46.8</td>
</tr>
</tbody>
</table>

*23 instructors among 25 who initially signed up for the survey showed up on the day of the pretest. 22 appeared in the posttest.

We found significant decrease in repeat occurrences, and increase in the follow-up
interactions. Table 4 shows $p$-levels of paired two-sample $t$-test of the discourse tag occurrences in the pretest and the posttest.

**Table 4**

*Discourse Tag Occurrence Comparison Results*

<table>
<thead>
<tr>
<th>Category</th>
<th>Variable</th>
<th>$p$-level (two-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disfluency</strong></td>
<td>Filler</td>
<td>0.313</td>
</tr>
<tr>
<td></td>
<td>Repeat</td>
<td>0.009*</td>
</tr>
<tr>
<td></td>
<td>Revision</td>
<td>0.333</td>
</tr>
<tr>
<td></td>
<td>Restart</td>
<td>0.218</td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td>Evaluation</td>
<td>0.167</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>0.002*</td>
</tr>
</tbody>
</table>

*Note.* $p < .01$

We also found significant increase in the means spoken tokens per minute. Figure 3 shows a scatter plot of teaching time and spoken tokens.

*Figure 3.* Scatter plot of teaching time and spoken tokens of each participant in the pretest and the posttest.
In a written survey after the posttest, participants responded that they felt corpora enhance follow-up feedback in particular and English language fluency in general. Many write-in comments also mentioned the importance of follow-up feedback phrases in particular and of consistently saying simpler phrases in general. The increase of follow-up phrases in the posttest is evident. The conscious use of simpler and often wordier phrases may have contributed to the increase in the number of spoken tokens per unit time in the posttest.

6. Conclusion and discussion

Enabling English classroom discourse by non-native instructors is feasible based on the following research findings.

(1) Factors that predict CLT are (a) use of English instructions (b) not using Japanese, (c) using English to communicate, and (d) pair work in English.

(2) Classroom English core vocabulary items exist shared by NIs and NNI, and differences in vocabulary items exist in those that are NIs' role-dependent. However, they are assumed to be attainable by NNIs.

(3) Utilizing classroom corpus (both transcriptions, annotations, and audios and video clips) improve preservice non-native English instructors' classroom fluency and follow-up discourse.

Series of our doctoral projects have at least 3 suggestions for further research that remain unanswered. Firstly, Project 1, which surveyed NNIs in Hokkaido Island, may not be broad enough to cover the entire nation. Such survey can be expandable to entail NNIs in as many high schools as this nation holds. Besides, we still have unproved elements revealed in the literature such as difficulty with classroom management and lack of preparation time. We expect other researchers to conduct more thorough
survey on NNIs throughout the nation. The questionnaire needs revising so that they will measure NNI CLT feasibility more precisely. Eventually, results of such broader survey will enhance CLT by NNIs in the future. Secondly, Project 2 suggests the NNIs' lexical items compatibility with those of NIs. However, developing classroom corpus still needs accumulating more video recordings and transcriptions of interactions with their learners. Finally, findings in the use of corpora to train preservice instructors need to be tested upon training in-service teachers who are willing to be “fluent” in classroom English discourse. In conducting such a project, it will be necessary to budget the project in the first place, and ask a lot of in-service NNIs that can afford enough time to manually transcribe, and annotate their speeches. Such project would provide evidence to analyze furthermore the NNI classroom speech characteristics and second/foreign language acquisition.
Chapter 1 Introduction

1.1 Issues in focus

Japanese English education has been criticized for uncommunicative ways to teach English to learners of English (students). The former course of study by MEXT (the ministry of education, culture, sports, science & technology in Japan) that was implemented in 2003 proved to be a failure in that it did not promote the use of English language as a means of instruction and medium of communication. It seems that many non-native instructors (NNIs hereafter), whose first language is Japanese, in Japan still resisted regarding the communicative language teaching (CLT) as surveys showed (Kato, 2002; Sakui, 1999; Wada, 2002). Although the new Course of Study that started in April 2013 stipulates the use of English as a means of instruction, it is still uncertain whether Japanese English teachers will really start teaching English through English for several reasons. Although the government mandates NNIs use the target language, i.e., English (L2 hereafter) in conducting lessons, its nation-wide survey estimated that NNIs who have L2 skills that guarantee L2 language lesson feasible amounted to less than half of the entire number of all the NNIs in this country (MEXT, 2011a, 2011b).

Why is it that Japanese non-native English speaker teachers do or will not teach English through English? Sakui (2004) did a survey on Japanese English teachers and found that they believe that grammar-translation method (GTM) that focuses on L2 forms, therefore explain grammar and interpret reading materials instead of teaching communication skills to learners.

Is it because Japanese English teachers are too busy to prepare to conduct their English lessons through English, or is it because Japanese English teachers’ internal linguistic competence, for example, English vocabulary is different from that of native English speakers that they do not give English lessons solely in English? Is
there any way to train non-native English teachers so that they can use more English in their English lessons? If we find possible reasons that hinder communicative language teaching (CLT), and ways to facilitate CLT, English education in Japan, where English is considered to be a foreign language, not a second language for learners, will produce far more English learners who will eventually be able to communicate in English much better than is currently criticized.

1.2 Scope of the study and research questions

The problems concerning infrequent use of English language use in English classrooms in Japan having been argued, the ultimate aim is to improve the unproductive Japanese English language educational situations in terms of CLT. We will examine the problems through literature review and a survey, then, propose ways to improve the situations. For these purposes, we pose 3 overall research questions that will be examined in 3 respective projects.

Some of the reasons why we are uncertain about implementing fully the entire use of English instruction in the classrooms are that (1) Japanese teachers of English, i.e., non-native speakers of English (NNIs) may not regard themselves as comparable English speakers like native speakers of English (NIs), (2) NNIs tend to regard native English speakers superior to themselves in conducting CLT, such native English-speaking teachers are generally called assistant language teachers (ALTs) to co-teach with NNIs, and (3) NNIs either do not have enough time to prepare CLT lessons even if they have skills to do so, or they do not assume that their students are unable to understand their English.

Are such assumptions reasonable enough to deter Japanese teachers of English conducting CLT English lessons in Japan? What do we need to do to overcome such situations? Our research seeks answers to comprehensive questions in
order to facilitate Japanese NNIs to implement more CLT in their classroom through the use of classroom corpus and its findings:

RQ1. How can NNIs implement CLT in their classrooms?

We hope that the first research question will generally review the unproductive English educational situation in Japan because we can assume factors exist that encourage or discourage NNIs to promote CLT. In order to reveal such factors, we conducted our first project. The first research project is to identify factors that on the one hand facilitate CLT and inhibit it on the other. In this research, we diagnose the problems with respect to NNIs themselves and the environment they are in, i.e., their workplace, which includes their coworkers, students they teach, and school chores they are obliged to do that are subject-unrelated.

When we understand the factors, and if the situation allows the NNIs to conduct CLT, the second question will arise whether the NNIs are eligible English language teachers. In Japanese English classroom, NIs are hired to co-teach English with NNIs although the NIs do not appear every English classroom. Some schools have only one-month long NI visit a year, others have only one-week long visit. Even in schools where NIs are based, i.e., they are stationed whole year, they appear only a quarter of the total number of lesson periods. Therefore, we may as well regard that NNIs must fully be responsible for conduct English lessons, which leads us to the second research question.

RQ2. Can NNIs be like NIs in their use of English?

We will investigate what all-English classroom is like by observing mostly co-taught English lessons by NIs and NNIs in addition to solo NNI English lessons
conducted by English. Project 2 will examine classroom English spoken by both NIs and NNIs. For this measure, we will develop English classroom corpus, and examine NI-NNI vocabulary differences and similarities. The result will give beneficial implication to enhancement of CLT.

The second project is to assemble non-native English language instructor classroom corpora, propose analysis methods, and investigating NI and NNI vocabulary differences. This entails transcribing classroom speech of 3 NIs, and 6 NNIs, and using so-called “classroom English” samples from several previous work by different authors.

If the classroom corpus discloses all-English classroom discourse and NI-NNI vocabulary differences and similarities, the findings will have some educational implications in implementing CLT by NNIs. The NNIs will benefit if they try to conduct CLT, by utilizing the classroom corpus data, and the methods the corpus linguistics might help them to train to develop their CLT sills (as well as their English language skills). Therefore, our final research question arises:

RQ3. How can NNIs be enabled to use CLT?

The final project examines the effectiveness of non-native English language instructor training using classroom corpora. In this research, 25 participants studying for an English teacher certificate at university had an English classroom corpus training, learned classroom speech and discourse followed by a mock English lesson, and did another mock lesson. Their transcribed speeches with annotation were examined and analyzed in order to discern statistically significant effects of the corpus training.

Figure 1 illustrates an entire doctoral project overview. In this figure Project 1 covers the entire research field that has the unproductive and uncommunicative
English education in Japan, where NNIs need assistance through teacher education (Project 3). In order to achieve successful NNI training, Project 2 must precede Project 3 to provide grounds to facilitate CLT training for NNIs, which utilizes methods and findings in Project 2.

The following chapters discuss the review of literature (Chapter 2), Project 1 (Chapter 3), Project 2 (Chapter 4), Project 3 (Chapter 5), and conclusion (Chapter 6).
Chapter 2  Literature

This chapter displays literature review concerning the three projects in the following chapters. Sections 2.1 through 2.8 discuss the previous studies that relate to our first project (Chapter 3). We look at look at why CLT has been unsuccessful through different perspectives (sections 2.1 through 2.7). They deal with issues affecting the adoption, or lack thereof, of CLT, ranging from the history of oral language learning in Japanese HSs to factors that relate to language teachers and their students. Section 2.8 summarizes factors that facilitate CLT based on the preceding sections.

Section 2.9 sees native instructor (NI) and non-native instructor (NNI) speech in general to discuss the issues when we think about NI-NNI classroom speech validity from lexical perspectives (Chapter 4). Section 2.10 briefly discusses classroom speech and classroom corpora. We look at the necessity to apply ideas of corpus linguistics to search evidence to argue NI-NNI speech similarities and differences. These reviews give us a scope for our second project that tries to distinguish NI and NNI classroom respective lexical keynesses.

The final two sections (sections 2.11 and 2.12) talk briefly about the application of corpus findings to language teacher education and how we should apply their findings to plan our final research project (Chapter 5). Although there has not been much research done as will be mentioned in section 2.11, literature of using classroom discourse is of interest in planning our final project when we experiment whether pre-service teacher training through using classroom corporal will be of benefit in enhancing the participants’ skills when teaching English through English.

2.1 Oral English Teaching in Japan

Japan’s HSs have not fared well with regards to teaching spoken English.
Oral methods have been consistently unsuccessful since the methods by Palmer and Fries failed in the 1950s and 1960s (Wada, 2002). These were only part of a series of problems.

The Ministry of Education, Culture, Sports, Science and Technology in Japan (MEXT) specifies teaching goals, methods, course descriptions, textbooks, and tools that HSs must use. MEXT’s directives are observed in appearance but not necessarily in substance. In 1990, MEXT required oral communication courses at HSs in the interest of advancing spoken language usage (1990 Course of study, 1990). In 1999, MEXT reiterated their requirement (1999 Course of study, 1999), which had been largely ignored, and in 2011, admitted in their progress report that the use of English in HSs is “below expectations” (MEXT, 2011a). In 2007, only 54.6% of teachers of course Oral Communication I offered by HSs nationwide said they used spoken English during more than half of the class period (the remainder of the interactions was in Japanese), and this was for a course emphasizing L2 use. In regular English language courses such as English I that do not emphasize L2 use, approximately 90% of teachers spoke Japanese at least half the time. Figure 2 shows the distribution of English language use during class periods for various English language courses in HSs (MEXT, 2008).

2.2 CLT’s dim outlook in Japan

Many teachers resist MEXT’s directives regarding CLT (Sakui & Gaies, 1999; Sato, 2002; Wada, 2002). Public sentiment blames the teachers' lack of CLT training or confidence to speak English in class as the reason why teachers are overly reliant on GT methods. In fact teachers defy CLT at least partly because teachers perceive that CLT is yet another fad the government is forcing upon them, and that the teachers' needs and constraints are being snubbed. As long as this discord persists, teachers will disregard any order by the government (Sato, 2002 discusses this in detail). Language learning
policies cannot be implemented solely on logic. The voices from the trenches must be accommodated. MEXT has rarely acknowledged teaching practitioners as stakeholders, however, leading Wada (2002) to predict:

"Given the past history of innovation in language teaching in Japan, it seems reasonable to wonder whether current moves initiated by Mombusho [currently MEXT] to promote communicative language teaching are similarly doomed to fail."(p. 39)

The objection or hostility that many teachers hold towards unilateral government decrees does not necessarily mean that teachers are reluctant to learn. Teachers probably do desire training to use English language in the classroom, although this may be a lesser interest compared to other demands at school.

2.3 Teacher beliefs

When a teacher believes in, say, an aspect regarding CLT, the teacher subjectively regards that aspect to be true. (The belief may not be true objectively. In fact the teacher may acknowledge that other teachers hold opposing beliefs.) The teacher becomes emotionally attached or committed to that belief, which, in turn, may mold the teacher's values and behavior. The general importance of considering teacher beliefs is clear (Sato, 2002; Powell 1997; Briscoe, 1996; Kleinsasser, 1993; Smylie, 1988), as is the tendency that teacher beliefs are unlikely to change over time (Foss & Kleinsasser, 1996; Lamb 1995; Johnson, 1994; Pajares, 1992; Richardson et al., 1991; Masumi-So, 1981).

In the case of EFL in Japan, Sakui interviewed 30 middle school (MS) teachers (Sakui, 2004). Sakui found that many teachers believe morphology and syntax should be taught using GT before transitioning to CLT because students must first be prepared to understand oral English instructions before engaging in communicative activities.
Sakui's analyses confirm Sato's claim that the majority of teachers
"conform to an established pattern of teaching with heavy emphasis on grammar explanation and translation" (Sato, 2002, p. 58)
but, unlike Sato, imply that this behavior is not necessarily due to lack of training in CLT methods but rather may be a conscious preference based on the teacher belief that GT must precede CLT.

2.4. Organizational constraints

The low use of CLT may not necessarily be due to teachers shirking responsibility but may reflect the expectations of school administrators, parents and students.

When it is the goal of a HS or an individual teacher to prepare students for college, the primary objective becomes passing college entrance exams. Teaching to the test is a pedagogically unsavory concept that parents, students, schools and teachers grudgingly or willingly accept. Because entrance exams focus on written language, and because teaching writing demands more teaching resources, teachers (either by following their teacher beliefs or by yielding to organizational demands) focus on GT aimed at reading comprehension. CLT becomes a secondary priority, regardless of the teachers’ urge or ability to teach using CLT. This situation has not changed for years. Nunan (1987) says teachers have limited opportunities to genuinely use communicative language. Karavas-Doukas (1996) shows teachers rarely taught communicative classes despite favorable attitudes towards CLT.

Organizational inertia is considerable. According to a survey by Pacek (1996):

... reasons given for the lack of success in introducing a more communicative and interpretative style of teaching, except for students’ resistance, can be summarized as follows:
peer resistance: ‘... other teachers laugh at me and say I will not prepare my students for exams if I keep “playing games” with them’.

parental resistance: ‘... parents only want their children to pass entrance exams, so they are only keen on old methods of teaching’.

poor textbooks: ‘Even now ... the texts are not authentic and sentences unnatural ... so it is difficult to use them to teach communicatively’. (p. 339)

Wada (2002) surveyed teachers at 150 schools in Japan, and points out the two-faced nature of ELT. On the one hand, the majority of teachers said that their primary teaching goal was communicative ability. On the other hand, their primary actual activity was teaching the content of their textbooks. Sakui (2004) echoes this contradiction between stated ideals and teaching in practice. Perhaps this mismatch between stated goals and actual activities is a source of discontent among teachers. Thompson (1996, pp. 10-14) details 4 misconceptions about CLT which are strongly believed to be so by non-CLT teachers: (1) “CLT means not teaching grammar”, (2) “CLT means teaching only speaking”, (3) “CLT means pair work, which means role play”, and (4) “CLT means expecting too much from the teacher.” He argues these misconceptions need clarifying especially non-native English language teachers who fears conducting CLT. Resolving this issue may increase job satisfaction.

2.5 Unfamiliarity with classroom conventions

Expectations of teachers and students combine to build classroom atmospheres and determine lesson procedures. The expectations vary depending on the frames of reference teachers and students have toward language lessons. Johnson (2002) described 4 main frames of reference, of which one is relevant to CLT:

"the theoretical beliefs [teachers] hold about how second languages are learned and how they should be taught" (p. 11)

that is, conventions, customs, traditions, habits and techniques that teachers and student
expect and accept in class. Classroom conventions cause confusion when they vary among teachers or culture. Some non-native teachers in Japan seem unclear as to what is expected of them and their students in a CLT class. If so, we may need to train teachers on how to behave as instructors and how to manage their class.

2.6 L2 restricted to the classroom

Behavior outside of class is also of interest. Both students and teachers seldom interact in L2 outside the classroom. Greetings in the hallway, coaching extra-curricular activities, ordering chores, chatting, and other interactions at school are probably rarely conducted in L2. Both students and teachers allow themselves to interact in L2 only within the ET classroom. They are "in character" (as in acting) only when learning L2. This decreases not only the amount of L2 exposure, but also the types of exposure, because in-class L2 use is a small subset of the types of interactions we experience in and out of class. Furthermore, students and probably teachers become embarrassed using L2 when "off stage" (again, as in acting).

As a polar opposite situation, we observed Belgian children and their parents interacting in Dutch, French, and English at their homes for day-to-day conversations -- not for learning the language per se but because it was "English day" (everything was done in English) or because an English-speaking guest was present. Belgians are comfortable speaking L2 among themselves. In some cases, they are unaware they had code-switched; we saw a guest ask a question in French during a Dutch conversation, and the conversation continued in French among all participants long after the question had been answered.

A challenge for the Japanese school and home is to use L2 outside the classroom; to sever the link between classroom and L2; to cease L2 use as an acting
medium or a language of the stage. Doing so may encourage use of CLT, improve L2 skills due to increased exposure, and eventually improve placement in college. In other words, if college placement is the immovable priority, then teach to the test using GT if one must, but increase exposure to L2 via CLT and out-of-class interactions to achieve the true pedagogical goal of communicative competence, and earn better college placement (via improved L2 proficiency) as a bonus.

2.7 Lack of learner motivation, and other inhibitors

Sato (2002) conducted a study consisting of a survey with over 100 questions, interviews with HS teachers, classroom observations spanning over a month, and recordings of discussions in the staff room. Sato found that real-world implementation of CLT faces challenges in at least 4 general areas: (1) accepting school norms and values, (2) reconciling individual beliefs and organizational constraints, (3) adapting to multiple teaching formats, and (4) increasing training opportunities. Sato says the top problem confronting teachers for all these 4 challenges is the lack of learner motivation, followed by a wide range of language abilities among students. These 2 factors are the underlying reasons as to why teachers prefer GT to CLT.

Kyriacou (2001) agrees that CLT adoption is thwarted by day to day issues: teaching pupils who lack motivation, maintaining discipline, coping with change, dealings with colleagues, and poor working conditions. Mousavi (2007) adds stressors of non-native teachers such as lack of confidence, discipline, and duties other than EFL. It is not completely clear how these stressors selectively inhibit CLT more than GT, but it would appear that, in general, stressors would encourage the use of familiar methods no matter what they may be.

Sakui (2004) found that the teachers' lack of confidence and proficiency in speaking English was another reason why implementing CLT has been unsuccessful.
Lower proficiency means teachers are less capable of incorporating spoken language in class. Working with instructors who do possess proficiency has produced mixed results. Native-speaker teachers have been hired through the government's *Japan Exchange and Teaching Program* (JET) since 1987; yet Wada (2002) reports that most Japanese teachers of English showed hesitation about teaching together with English-speaking assistant teachers ... the most common obstacle to team teaching cited by Japanese teachers of English was their lack of confidence in their ability to communicate in English with a native speaker. (p. 38)

Perhaps both native and non-native speakers are hampered by their monolingualism and monoculturalism; that is, they both lack competence in (and may benefit from cross-training in) their counterpart's language and working styles. Such cross-training might take place during pre-service teacher training as part of learning team-teaching skills in general. Scholefield (1997) says;

“teachers of English receive no formal training [during college] with respect to team teaching and little information on how to implement communicative teaching on a regular basis in all of the various skill areas (as cited in Sato, 2002, p. 47)."

Learning how to team-teach in cross-lingual and cross-cultural settings should be a convincing motive for acquiring team-teaching skills.

**2.8 Factors that facilitate CLT**

The literature indicates various reasons why CLT has not succeeded:

- government imposes learning goals and course descriptions without consulting teachers or parents
- schools, parents, students, and teachers value college placement that emphasizes written language
• teachers are trained in, comfortable with, and prioritize GT
• teachers are over-committed to non-L2-teaching duties
• teachers and their assistants are denied the opportunity to improve their professional skills, especially with regards to language proficiency and cross-cultural team-teaching
• students are unmotivated and unskilled
• students lack exposure to L2 outside of classroom

Given these challenges and their backgrounds, it seems that at least the following positive factors exist:
• government, teachers, parents, and students would welcome L2 proficiency (especially if proficiency can be attained during preparation for college)
• teachers are willing to teach using CLT (especially if CLT opportunities can co-exist with demands for college placement)
• teachers are willing to speak English (especially if students can understand their teachers)
• teachers are willing to improve English and how to teach with CLT (especially if workload allows)
• teachers may become confident in CLT (especially when all the above conditions are met)

Thus we largely recognized internal factors and external ones. The internal factors originate in the instructors’ beliefs and assessment of their students, and the external relate coworkers and working conditions that might affect CLT feasibility.

In Chapter 3, we describe a survey intended to ascertain the effect of and relationship between these factors.

2.9 Classroom speech by NI vs. NNI

Let us first consider how the general public perceives NIs. Many for-profit
language schools stress in advertisements that their instructors are all NIs, implying that NNIs are less desirable. College students tend to judge NIs as more authentic and demanding. Everybody claims they would love to speak English "like a native". What better way than to learn from a native speaker? But being a native speaker per se is no guarantee of teaching ability. Most Japanese people would be inadequate in teaching Japanese language to non-native learners. Yet learners of English language clamor for NIs. Most NIs are native speakers of English with a bachelor's degree, but with no formal training in teaching any subject to any age group. We can see one such example in the eligibility criteria of the Japan exchange and teaching program (JET), which says, “[. . . ALT. . . ] applicants must hold at least a Bachelor's degree or obtain such qualifications (JET eligibility criteria, retrieved 2012-11-20).” Some capabilities of NIs are misunderstood and overvalued. But there is no evidence from the classroom that supports or refutes the claim that NIs are superior to NNIs who use CLT. Either way, evidence is quickly needed because in middle schools English classes are already being taught under the new course of study, and high schools will teach English through English starting in 2013.

Next, let us consider the advantages of NNIs. While some NIs are monolingual, all NNIs in middle schools and high schools are formally trained in college or university, are certificated by MEXT are at least somewhat bilingual, and tend to be more aware of linguistic and cultural differences between L1 and L2. When the NNIs and learners share the same L1 (as is the case with the vast majority of English language classrooms in Japan), learning is facilitated by the NNIs' own experience in learning L2, along by their training in applied linguistics specifically comparing L1 and L2. For instance, when a learner says "John's attitude changed like turning over a palm", an NNI would recognize that the learners wants to say "John abruptly changed his
attitude", but an NI would be baffled without knowledge of Japanese idioms or mismatches in lexical meaning between Japanese and English. An NNI might teach faster and more precisely than an NI. Some capabilities of NNIs are undervalued, perhaps foremost by the NNIs themselves.

How do NNIs teach? As recently as in 2007 in Japan, only 30% of middle school and 10% of high school English language classes were conducted in English (MEXT, 2008). Starting in 2013, all English language courses must be delivered in English (2009 Course of study, 2009), but some NNIs are reluctant (MEXT, 2009). A Japanese governmental nation-wide survey estimated that less than half of NNIs have L2 skills sufficient to teach using only L2 (MEXT, 2012). In one case, 30 NNIs in Japan experienced difficulty incorporating communicative language teaching (CLT) in their English language courses (Sakui, 2004). (CLT is a language teaching technique that emphasizes the active usage of L2 with the primary purpose of achieving tasks and the secondary purpose of acquiring language accuracy. CLT discourages the use of L1.) In another case, NNIs outside Japan preferred mixing L1 and L2 to using solely English as both the medium and content of instruction. South Korean NNIs code-switched from L2 to L1 when explaining grammar, vocabulary, and background information (Liu, Ahn, Baek, & Han, 2004). (Code-switching refers to changing languages.) As cautioned (Wada, 2002), the current course of study by MEXT has not elevated the use of English language as a means of instruction and medium of communication as high as it expected. A considerable number of NNIs resist CLT (Liu, Ahn, Baek, & Han, 2004; Sakui & Gaies, 1999; Wada, 2002).

In sum, these surveys indicate that (a) about half of Japan's NNIs cannot teach using CLT, (b) many NNIs avoid CLT even if they can use it, and (c) when CLT is used, it is often in the form of co-teaching where the NNI depends on the NI. (Co-teaching
means multiple instructors teaching the same class together, often by dividing tasks among them.) The unwillingness to use CLT is deemed by learners, parents, and school administrators that NNIs teach poorly.

2.10 Classroom speech and classroom corpora

If there exists a difference in teaching ability between NNIs and NIs, then the educational community has the right to know what those differences are, and how those differences affect learning. If in fact NNIs are less skilled in CLT than NIs, then to succeed in CLT either NNIs need more training, or more NIs need to be hired. If NNIs and NIs are equally skilled, then NNIs and NIs can be positioned interchangeably. If NNIs and NIs have different roles, then in-service and pre-service instructors should either become explicitly aware of their complementing responsibilities so that they can co-teach, or receive cross-training to acquire skills in both roles. (Cross-training means being additionally trained in a colleague's skill in order to broaden one's skill set.)

Let us consider how to clarify the differences between NNIs and NIs by analyzing their spoken language production in the classroom. Could it be that the NNIs' total vocabulary size or basic vocabulary size are substantially smaller than the NIs'? What can NNIs do to use English as the main or sole medium of instruction and content? If the vocabularies of NIs and NNIs are equally effective, then parents and school administrators can confidently ask NNIs to use CLT. (The stake-holders needing confidence the most may well be the instructors themselves.) When NNIs and NIs both use English language more, the government mandate might succeed. Research on vocabulary size shows that by 18 years of age native speakers of English know approximately 18,000 words, of which 2,000 words constitute a basic vocabulary (Nation, 1990, pp. 11-12), beyond which the frequencies of occurrence drop sharply (McCarthy, 1999).
Speech in English language lessons consists of roughly two types: (1) lesson proper, involving teaching speech such as teacher-initiated one-way informatives and directives (Sinclair & Coulthard, 1975), and (2) lesson peripheral, involving classroom management speech, and including so-called classroom English (CE). In a third-year classroom at a lower secondary school in the Netherlands, 72% of all instructor utterances were lesson proper, and the rest were lesson peripheral (Hajer, 2000).

In order to achieve CLT use by both NIs and NNIs, this study focuses on their classroom speech. Previous studies on the classroom speech of NIs and NNIs, and on NI vocabulary size provide scope for our study.

2.11 Using classroom corpora to teacher education

Classroom corpora enable "quantitative and qualitative analysis of almost any aspect of classroom interactions" in general, and in one particular situation, using classroom corpus tasks in an initial teacher education program improved student teachers' teaching knowledge, efficiency and insight (O'Keeffe & Farr, 2003, p. 399). Although recommendations were made to implement corpora in language teacher education (Conrad, 2002, p. 86; Sinclair 2004, p. 2), little has been explored as to the application of corpora (Moreno & O'Riordan, 2006, p. 84).

Focusing on discourse markers of instructors in the classrooms raises interest in what is expected to happen next given what has already happened. Fraser (1990) defines discourse markers as "a type of pragmatic (as opposed to content) class, specifically a class of commentary pragmatic markers. . . . [and they] have a core pragmatic meaning, . . . which signals how the speaker intends the message following to relate to the foregoing discourse" (pp.394-395). Fraser (1999) lists as many as 40 cases of discourse markers, and categorizes them as "a pragmatic class, lexical expressions drawn from the syntactic classes of conjunctions, adverbials, and prepositional phrases"
Moreno & O'Riordan (2006) conclude that using concordance lines (shown as concordance printouts) to train non-native-speaker student teachers in college in how native language teachers use discourse markers such as *well, but, and OK* is effective because the number of such discourse markers are limited and "not a challenging task for student teachers" (p. 91). Such discourse-based approaches to language teacher education show the potential of using language corpora in teacher education. Henry & Roseberry (2001) describe this as "whole-corpus reading and study," where "the corpus is short enough that it can be read and studied in its entirety" (p. 100).

Another potential of using classroom corpora is related to classroom discourse structure that Sinclair and Coulthard (1975) proposed based on initiation by teachers, response by their students, and follow-up by the teachers (the I-R-F model). If there were such corpora annotated with classroom discourse elements, use of such classroom corpora might gain further potential for language teacher. In one study (Farr, 2002), teacher-student interactions were recorded, transcribed, and developed into a mini-corpus. The transcriptions were analyzed with respect to teacher question forms and students' productivity, and revealed that teacher trainees became aware of the corpus findings as well as pedagogical and linguistic awareness.

### 2.12 Transcriptions, annotations and audio-visuals

Written corpora were not necessarily the best media, however; the student teachers commented in an interview that (1) video recordings with transcriptions would have been more preferable, (2) video recording would have been much better resources, (3) corpora with the books were useful in that they showed examples of useful phrases, and (4) they learned to use a variety of different discourse markers (Moreno & O'Riordan, 2006, p. 96). Braun (2005) used video-based interviews with English native speakers with three categories of annotations: (1) content-related such as topics, (2)
L2-related such as lexical, grammatical, pragmatic, and (3) learner-related such as level of proficiency (pp. 55-56). These studies indicate the potential of using audio-visual corpora.
Chapter 3 Identify enabling factors of CLT (Project 1)

3.1 Introduction

Our first project encompasses the research field we will be focusing on through the doctoral project. Figure 3 illustrates our research area and subjects. Our research subjects include English language instructors majorly discerned as non-native (NNI), who sometimes co-teach English with native instructors of English (NIs) known as assistant language teachers (ALTs). They teach English to their students regarded as learners in high schools in Japan. We speculate from the literature that NNIs are influenced by their teaching objectives such as passing entrance examinations to universities and seeking to attain communicative competence. Therefore, Project 1 researches relationships between subjects (especially NNIs) and their objectives, and see whether factors exist to facilitate communicative language teaching (CLT). We seek to attain this goal through conducting an NNI survey and analyzing the data.

3.2 Survey

3.2.1 Research questions and variables

This section discusses our research questions and variables. How could we enhance the use of communicative language teaching (CLT) in English classroom? That is to say, how can non-native English teachers be assisted in building more English classroom discourse, thus be able to communicate and interact with students in their target language, English? Based on our understanding of the literature, we believe that there are at least 4 variables surrounding teachers that relate to the likelihood of CLT's success in Japanese HSs: (V₁) the teachers' teaching goals and methods, (V₂) the teachers' assessment of their students, (V₃) the teachers' working conditions, and (V₄) the teachers' perception of CLT feasibility. We are interested in the relationship between these 4 variables and how they predict the likelihood of CLT's success.
Therefore, our research question of the first project is as follows: What are enabling factors of non-native instructor English communicative feasibility? We are interested in identifying, and understanding the relationship among, variables surrounding teachers that relate to the likelihood of CLT's success at HSs on Hokkaido Island, Japan.

Variables $V_1$ through $V_4$ are not necessarily mutually independent. Let us explain each variable in turn.

The teachers' teaching goal and methods often stem from deeply rooted beliefs. For instance, an instructor believing that students should pass college entrance exams might choose GT over CLT.

The teachers' assessment of their students may influence the success of CLT. Teachers may be more likely to use CLT when they believe their students possess, or will possess, higher language skills.

The teachers' working conditions may affect the teachers' behavior. With regards to language teaching, needing to coordinate with coworkers the choice of textbooks, teaching methods, and teaching speed may affect whether CLT will be chosen. Coworkers include native-English teachers, assistant language teachers (ALTs), and non-native-English teachers. With regards to responsibilities not directly tied to language teaching, duties such as disciplining students or coaching extracurricular activities may have an impact on the time and energy teachers can spare for CLT.

The teacher's perception of CLT feasibility is likely to influence the success of CLT. This includes how teachers judge their own skills and those of their students' with regards to teaching L2 using only or mostly L2 as the medium of instruction.

Therefore, we came up with the following research questions that we seek to answer in this paper: Do four variables ($V_1$ through $V_4$) above affect CLT feasibility? We hypothesized several possibilities among the relationship among $V_1$ through $V_4$. 
One of such possible measurement models is shown in a path diagram to explain relations among the 4 variables (Figure 4). In the path diagram, \(V_1\) through \(V_3\) are predictor variables, and \(V_4\) is a dependent variables. We created questionnaire items in our survey so that they would represent our 4 research variables. Therefore, we consider our research variables latent and the questionnaire items measured variables.

There can be other possible models. However, we will discuss other possible models in more detail with goodness of fit indices (GFI) and standardized coefficients in section 3.2.

3.2.2 Survey and participants

This survey was written and answered in Japanese, and consisted of 47 multiple-choice questions with choices given on a Likert scale of 5, plus 3 open-ended questions that asked for written responses (an English translation of the survey is in Appendix C-1).

In August and September 2010, we sent the survey questions and 3 answer sheets to all public high schools and private high schools in Hokkaido (\(N=310\)), along with a cover letter requesting principals or head teachers of English departments to ask for the cooperation of up to 3 teachers of English language whose native language is Japanese. We did not ask for any specific individuals to participate. At the time of the survey, there were approximately 1670 such teachers on Hokkaido Island. Hence we were asking for answers from 930 unspecified teachers out of approximately 1670.

We asked for 3 teachers per school because we feared that we would receive fewer responses if we asked for all teachers to participate; the survey might appear too arduous, or schools with less than total participation might not send back their partial responses in timely fashion.

Our survey carried no reward or penalty with regards to participation. All
responses were anonymous. The survey included a consent form asking for permission to use the teacher’s responses in research.

3.3 Results and Analyses

This section depicts (1) quantitative descriptions of the results, (2) Chronbach’s alpha level of the questionnaire items, (3) correlation coefficients among variables, and (4) structural equation modeling (SEM) of research variables.

3.3.1 Responses

Tables 1 and 2 show the numerical breakdown of responses to our survey. We sent questionnaires to all the 310 high schools in the Hokkaido Island, and received responses from 150 high schools (48.4%) we sent survey questionnaires (Table 1).

We had 312 responses, which amounted to 33.5 % collection rate. We covered approximately 18.7 % of the entire high school English non-native teachers in Hokkaido. Table 2 shows the numerical breakdown of 312 teachers who provided responses that are analyzed in this paper.

Figures 3 through 8 the background of the teachers who responded.

3.3.2 Choosing reliable questions

From the 42 multiple-choice questions that asked for responses on a 5-point Lickert scale, we eliminated 17 items and categorized 4 sub-groups to measure 4 research variables (V₁ to V₄). αs for V₁, V₂, V₃, and V₄ were .74, .60, .58 and .62 respectively. Table 3 shows reliable question items used as measured variables. My survey question items were found to be reliable (25 items; α= .80).

3.3.3 Correlation coefficients among research variables

The 4 sub-groups were assigned to 4 research variables. We calculated the correlation coefficients among our 4 research variables. Table 4 shows a correlation matrix.
The following discusses the correlation coefficients among our 4 research variables. Written responses to our survey are considered when relevant.

**V₁ vs. V₄**

High correlation was found between V₁-V₄ \((r = 0.83)\). Written responses that are relevant to this pair of variables include:

I am frustrated because the government's communicative goals conflict with the skills my students' need to pass college entrance examinations. College placement is a once-in-a-lifetime opportunity for my students. I am obliged to teach to the test. (Teacher A)

When my students desire high grades in university entrance examinations, I help them achieve their goals. (Teacher B)

The high correlation between the teachers' teaching goal and methods and the teachers' perception of CLT feasibility might indicate that teachers select their teaching methods based on their students' needs. When students want to go to college, teachers prepare students for entrance exams through GT methods. Otherwise, teachers might choose CLT.

**V₂ vs. V₃**

Moderate correlation was found between V₂-V₃ \((r = 0.71)\). Written responses that are relevant to this pair of variables include:

“The actual situations of students and schools preclude teachers from offering all-English courses.” (Teacher C)

If MEXT wants HSs to teach L2 using only L2, then MEXT should first look at schools like mine. My HS has many low-performing students who have difficulty understanding lessons even in L1. Students like mine definitely deserve help in L1. (Teacher D)
My students span a wide spectrum of English language proficiency: from introductory to advanced. I rack my brain how to teach them all in one classroom. On the one hand, I have students preparing for college. On the other hand, I have students who [after 3 years of English in middle school] cannot write the alphabet, or understand words such as "study" and "school." All-English lessons are unsuited for such students. I doubt that MEXT is aware that some HSs in rural Hokkaido accept all applicants including those with developmental disorders. (Teacher E)

The teachers' assessment of their students seems to correlate with the teachers' working conditions. When the teachers' working environment favors lesson planning and self-development, teachers are likely to expect communicatively high goals of their students, and vice versa. For instance, when disciplining students or coordinating homeroom duties are not heavy burdens, teachers can focus resources on preparing lessons and improving their own skills. Teachers seem to believe that CLT is suited for privileged students.

Working conditions are correlated with the students' academic skills. The write-in responses from teachers D and E depict the harsh constraints that deny some teachers from using CLT. Students with low proficiency or learning disabilities require attention that sap teachers of resources that otherwise might have been used for CLT. If this interpretation is true, then low-performing schools may never choose CLT.

$V_1$ vs. $V_3$

Weak correlation was found between $V_1$-$V_3$ ($r = 0.66$). Written responses that are relevant to this pair of variables include:

“I have no time to develop my English language skills because of daily school duties (Teacher F).” “I could teach all in English if I tried. Unfortunately I cannot prepare
appropriate audio-visual teaching material. I am tied up with non-EFL work as a homeroom teacher and duties assigned by the school district (Teacher G).” “If MEXT wants Japanese citizens to speak English, then MEXT should (a) increase the amount of English learning time per student, and (b) allow teachers to concentrate on EFL by reducing non-EFL duties (Teacher H).”

It appears that teachers are overwhelmed by non-EFL duties. Teachers with time can prepare for CLT lessons, while those without cannot.

V₁ vs. V₂

Weak correlation was found between V₁-V₂ (r = 0.63). Written responses that are relevant to this pair of variables include: “While I agree that EFL should include communicative aspects, I disagree with the view that all Japanese people should be able to communicate in English. Students should not be given more than they can chew (Teacher I).” “My students have different English language skills. They are students with low academic abilities. I prefer to teach content that students enjoy rather than teach intermediate or advanced material (Teacher J).”

This suggests that the teachers' teaching goal and methods correlate with the teachers' assessment of their students. Teachers who prefer CLT expect much of their students. Teachers who do not prefer CLT do not expect their students to use L2 communicatively.

V₃ vs. V₄

No correlation was found between V₃-V₄ (r = 0.31). This seems to contradict the moderate correlations between V₁-V₃ and V₁-V₄. In hindsight, V₃ included too many sub-variables such as colleagues, non-EFL workload, and range of students' language proficiency. We should have divided these areas and asked more questions, but we had hesitated because the survey would have become unbearably voluminous. One aspect
that we might focus on in future research is the mutual relationship between Japanese-native teachers and English-native teachers. In our current survey, we were unable to generalize expectations towards ALTs from the written responses because the teachers' opinions were inconsistent.

**V₂ vs. V₄**

No correlation was found between V₂-V₄ (r = 0.26). Written responses that are relevant to this pair of variables include: “I want students to come to class with a clear sense of purpose. Some students are poorly motivated (Teacher K).” “I want students to try English activities with an open mind. Students with positive attitudes will become interested in EFL even if they are reluctant to commit. Teachers should kindle such emotions (Teacher L).” “I want students to be conscientious, acquire skills, and continue learning. Students should realize that doing what they like the easy way is not enough. I want to challenge my students (Teacher M).”

The lack of correlation between V₂-V₄ is inconclusive. We are reminded that poorly motivated learners encourage GT (Sato, 2002).

### 3.3.4 Structural equation modeling of latent variables (SEM/LV)

We analyzed the survey responses by structural equation modeling of latent variables (SEM/LV) where V₁ through V₄ were the latent variables. We compared the goodness of fit index (GFI) values of various possible SEM/LV models based on the correlation matrix in the previous section (Table 4). We used chi-square values and the indices shown on Tables 5 and 6 respectively to discriminate between good fitting models and poor fitting models. The V₁→V₄ model had acceptable values for all those indices.

The V₁→V₄ model indicates a causal relationship from V₁ toward V₄ (Figure 9). 4 out of the 7 measured variables reasonably represent V₁. 2 measured variables
reasonably represent $V_4$.

3.3.5 Write-in answers in the survey

This section depicts 3 write-in question answers in the survey. I asked 3 write-in questions so that I could support the quantitative data I would collect in the multiple-answer sections. I try classifying the write-in answers depending on the areas that they could possibly relate to. Figures 10 through 12 show histogram of classified answers. The write-in questions concerning NNIs’ expectations and requests toward (1) their students, (2) ALTs, and (3) English education in general extracted 61, 78, and 86 responses respectively.

The first write-in question asked NNIs’ expectations and requests toward their students. Approximately 40% of the responses to this question is classified as the student motivation. This is an outstanding result because the second largest category is the NNIs’ expectation of their students to study English at home (approximately 15%), which is less than half the percentage of the expectation ranked first. The other classes Figure 10 shows the histogram of the first write-in question answer classes.

The second question asked NNIs’ expectations and requests toward ALTs. Although the class ranked first amounts to a little over 15%, the classification shows rather high expectations toward ALTs. Most of them concern how NNIs should be assisted. “Interact with students,” “ALTs should plan lessons,” and “ALTs should know teaching method” are such examples. This reflects NNIs’ problems in conducting CLT lessons. The NNIs that responded need assisting in lesson planning and conducting lessons, especially when having English interactions with students. Figure 11 shows the histogram of the second write-in question answer classes.

The third write-in question asked NNIs’ expectations and requests toward English education in general. I suspected there might be some other factors that affect
CLT feasibility other than the initial 42 questions. Except for few, most of the classes are not so surprising as they had been previously expected from the literature. One such few classes are “More NNs are necessary in addition to more budget,” and “Teaching English should not be the only subject that deserves criticism (there should be other subjects to be criticized as well).” Figure 12 shows the histogram of the third write-in question answer classes.

My classification might give some hints to both instructors including NIs, and policy makers for improving English educational situations in this country.

3.4 Conclusion and discussion for Project 1

The following sections explain our conclusion (section 3.3.1), implications and limitations (sections 3.3.2 through 3.3.4).

3.4.1 What kind of teachers believe in the success of CLT?

SEM/LV modeling indicated a causal relationship from $V_1$ toward $V_4$, meaning that the teachers' teaching goal and methods influence the teachers' perception of CLT feasibility. In particular, responses to survey questions 2, 3, 5, 6, 24 and 25 had a relatively strong impact on the teachers' perception of CLT feasibility. Teachers who prefer and are confident of using English over Japanese as the language of instruction, teachers who encourage communication pair-work among students, and teachers who adjust their teaching according to the students' skills are likely to believe in the success of CLT.

3.4.2 Implication to teachers

Non-native English teachers seeking to use CLT may wish to (1) improve their own English language skills, (2) increase the use of English as the language of instruction, and (3) increase communication pair-work.

3.4.3 Implication to policy makers
No correlation was found between $V_2$-$V_4$ and $V_3$-$V_4$. Teachers of underprivileged students are not necessarily pessimistic over CLT. Nor are busy teachers. The needs of their students and the school environment do seem to affect the teachers' optimism, however, which leads us to propose 2 changes in educational policy. First, the structure and content of entrance examinations should be overhauled because they force teachers to use non-communicative methods even when teachers realize that CLT is better. Entrance examinations that evaluate communicative competence will accelerate the adoption of CLT.

Second, the school environment should be restructured such that (a) student needs are less diverse, and (b) teacher growth is assured. Recall that some HS classrooms have advanced students preparing for college and remedial students who cannot write the alphabet. The students should be grouped according to their needs. Teachers need time and energy to grow as well, and lessening their non-EFL duties would help improve their language skills and prepare material for CLT classes.

3.4.4 Limitations and suggestions for future research

There are at least two limitations to our survey. The first limitation is scope. The geographic area covered in our survey and the number of teachers who responded within that area are both small. Obviously a nationwide survey would be more convincing. That being said, we see no reason why our findings would differ from HSs on other islands in Japan.

The second limitation is more serious, and concerns the choice of measured variables. In our SEM/LV analysis, we studied the relationship between the latent variables $V_1$, $V_2$, $V_3$, and $V_4$, which were each determined by measured variables corresponding to questions in the survey. While some measured variables showed meaningful correlation with their associated latent variables, other measured variables
did not, resulting in some of our findings being inconclusive. We need measured variables that correlate more strongly to their latent variables.

3.4.5 Planning following projects

Now that we found factors to facilitate CLT in Project 1, the following task is to how we should create English classroom environment where instructors (NNIs) use English language as a means of instruction and materials to teach through it. If we do not display what classroom environment where English is used in such manners, NNIs who believe that the GTM is the norm might end up with not using English sufficiently because they are not native English speakers, who they believe are far more proficient users of the language, or resorting to only team-teaching co-taught by NIs instead of NNIs using English in their solo classes. Therefore, we need to show evidence that all-English lessons are attainable goals if NNIs conduct lessons without the help of NIs. Project 2 will seek to find such evidence by quantifying English classroom speech by NIs and NNIs.

The next chapter (Project 2) will explain how to quantify English classroom speech by instructors, and analyze spoken tokens so that NNIs can utilize its findings when they are to conduct CLT by themselves. We will see how findings in Project 2 will be applied in order to train NNIs, and examine in Project 3 whether such findings will be actually of benefit to NNIs.
Chapter 4  Examine NI-NNI vocabulary differences and similarities (Project 2)

Project 2 researches English instructor (both NIs and NNIs) speech in the actual English classrooms where English is used as a means of instruction, and teaching materials. Figure 13 illustrates a Project 2 research field and its relevance to our research subjects and their objectives. The project seems to circumvent and be a little off the doctoral project objectives at a first glance. However, it is necessary to conduct this project because we need spoken English evidence in the actual English classrooms in order to facilitate CLT since the literature review revealed that English teaching conducted in English by NNIs is not a matter of course in Japanese high schools yet. The findings of Project 2 will be utilized in Project 3 to help to support NNIs, which would eventually lead to enhancing CLT.

4.1 Introduction

English language learners in Japan, their instructors, parents, and school administrators share a preconception that, in contrast with native instructors (NIs), non-native instructors (NNIs) are somewhat if not totally incapable of teaching English through English. (NIs are teachers whose first language (L1) is English, and who may or may not speak Japanese as their second language (L2). NNIs are teachers whose L1 is Japanese and whose L2 is English.) Because NNIs outnumber NIs by over 15 to 1 in Japan's middle schools and high schools (MEXT, 2007; JET, 2012), parents and learners fear that they are statistically likely to be taught by inferior teachers. The roles and effectiveness of NIs and NNIs are poorly researched, however. Instructors, learners, parents, and school administrators deserve to know how NIs and NNIs differ, and how to leverage or correct those differences.

Based on the literature, the following questions deserve attention: (1) Do the classroom utterances of NIs and NNIs differ in terms of vocabulary size? (2) What
vocabularies do NIs and NNIs share? (3) What characterizes their different vocabularies? (4) What can NNIs learn from NIs, and vice versa? (5) How can we encourage and justify the use of English by NNIs in classrooms of English as a foreign language where NIs participate only on limited occasions?

Answering these questions requires analyses of NI and NNI speech. This paper addresses that requirement by developing a corpus of classroom spoken English, and proposing methods to analyze lexical types and tokens found in such a corpus. (A lexical token is an instance of a word form. A lexical type is a headword that represents a group of inflected forms. For brevity, this paper occasionally refers to lexical types and tokens as types and tokens respectively.)

We hope this paper generates interest among the speech processing community to (a) engage at a larger scale in quantitative research of CLT classroom behavior by NIs and NNIs, and (b) quantify English production and reception by analyzing spoken interactions between instructors and learners in classrooms (which this paper has not done). We also hope that such research methods and findings from the speech processing community will aid language teacher training program administrators, language learning policy-makers, NIs, and NNIs in becoming cognizant of the instructors’ developed or latent talents.

The remainder of this chapter consists of research materials (section 4.2), methods, (section 4.3), results and analyses (section 4.4), and discussion and conclusion (section 4.5).

4.2 Materials

We compared NI and NNI speech using the following 3 materials: (1) transcriptions of English spoken by instructors in a language classroom, (2) a collection of CE phrases, and (3) a corpus created from large bodies of written and spoken English.
Of these, (1) is our work, as little research exists on NI and NNI English (Duff, 2000). Materials (2) and (3) were obtained from the literature as explained later in this section.

4.2.1 Classroom video corpus

In order to obtain NI and NNI speech data, we videotaped a Japanese public senior high school freshman English language class. This class was observed over a 6-month period. The video recordings were transcribed at the lexical token level.

There were 3 NIs, 1 NNI, 23 boy students, and 17 girl students. 40 students is a common class size for a Japanese public school.

The NIs had arrived at the school district after completing college in the USA, the UK, or New Zealand. None had prior teaching experience. The NIs were hired fulltime for a limited duration as assistant language teachers through a junior instructor exchange program in Japan (JET, 2012). The NNI was a permanent employee of the school district, with 20 years' teaching experience.

The learners were typical Japanese high school freshmen, who, when videotaping began, had just finished 9 years of compulsory education (all of it in Japan), of which during the last 3 years they learned English language in 50-minute class periods meeting 3 times per week, for 35 weeks per school year. Their estimated vocabulary size was approximately 1,000 lexical types. We believe the learners' English language proficiency was at the elementary level, perhaps S-1 on the ILR (FSI) proficiency scale (SIL International, 1999) or between A1 and A2 on Reference Level Descriptions (RLD) for national and regional languages (Council of Europe, 2001).

The high school English class consisted of 45-minute class periods meeting 4 times a week. 1 NNI, who was always present, taught the class during the entire videotaped period. Once every 5 lessons on average, an NI (but never more than 1 at a time) co-taught with the NNI; that is, (a) NIs co-taught with the NNI every time they
appeared in the lesson, (b) NIs never taught solo, but (c) the NNI did teach solo. When the speech data were being collected, the instructors were not explicitly aware of any differences in their teaching roles or lexical types. Differences might have arisen because (a) NIs always co-taught while NNIs co-taught and solo-taught, meaning that the NNI may have played the roles of the NIs had they been co-teaching, and (b) NNIs in general seem to depend upon NIs for communicative language teaching.

During class, an audio CD provided by the textbook publisher was used from time to time. CD speech appearing in the classroom video recordings was also transcribed in order to show the size of NI and NNI speech relative to CD recordings. Some readers of this paper may be familiar with classes where NNIs speak L1 most of the time, and an L2 recording is played on occasion. The CD speech in our corpora occurs at the same order of magnitude. This may give readers an idea of how much L2 was spoken by the instructors.

4.2.2 NNI reliability

To show that results from our lone NNI are generalizable, we compared the NNI's speech in the classroom corpus with that of other classes taught in English language by 5 NNIs (MEXT, 2012). The 5 NNIs had been video-recorded at 5 schools in as many regions across Japan by a government agency to serve as role models for NNIs throughout Japan. Each class had different learners and language material. In section 4.2.1, we will show by using word token distributions that the classroom language was similar across all 6 NNIs, and therefore that results from 1 NNI in the classroom corpus can be (with reservations) be generalized among NNIs who can teach using CLT.

4.2.3 Classroom English

One narrow definition of CE consists only of questions and commands uttered
to the students, for example, "Who hasn't got a book?" "Sit down, please." and "Take out your books." (Gardner & Gardner, 2000). We define CE as teacher-student interactions that are not teaching moves, that is, instructor utterances that are neither task-centered elicitations (questions using interrogatives), directives (commands using imperative forms), nor informatives (explanations using declaratives). Examples of CE conversations are given in the literature (Gardner & Gardner, 2000; Teranishi, 1950) that list classroom phrases intended as a guide for NNIs wishing to conduct classes in English. Among the NNI-student conversation examples given in (Teranishi, 1950), there were a total of 10,839 lexical tokens, of which 6,824 were spoken by the NNI, and 4,014 by the students. See Appendix E for classroom English samples (classroom discourse between the NNI and the students).

4.2.4 Benchmark wordlist

As the benchmark wordlist for comparison (O'Keeffe, McCarthy & Carter, 2007), we chose a wordlist that contains basic words (JACET, 2003), which lists the 8,000 most frequent lexical types in order from 1 (the most frequent) down to 8,000 (the least frequent). These 8,000 lexical types are ranked into 8 bands of 1,000 types each. The frequency rankings and bands were used to compare lexical types and tokens found in our transcriptions.

4.3 Methods

After transcribing NI, NNI, and CD speech, utterances were separated into lexical tokens. Lexical tokens were grouped into lexical types using Perl scripts that lemmatized tokens (i.e., grouped lexical tokens belonging to the same lexical type) (JACET, 2003). Lexical tokens that were derived forms were counted as different types.

We analyzed tokens appearing in NI and NNI speech in 3 ways: (1) We divided NI, NNI, and CE tokens and types into sets based on their commonality (section
4.3.1; (2) we compared NI and NNI tokens and types against the benchmark wordlist with regards to frequency rank, and correlation coefficients. (section 4.3.2); and (3) we compared NI and NNI types by first normalizing frequencies of NI and NNI tokens, and then identifying NI and NNI types with high keyness, i.e., tokens that occur with unusually high frequency (section 4.3.3).

4.3.1 Classifying tokens and types

For convenience, we will refer to sets consisting of NI, NNI, and/or CE tokens as sets \( S_1 \) through \( S_7 \) as defined in Figure 14. Such classification is of interest because, for instance, \( S_7 \) might suggest a core vocabulary of language instructors (Carter, 1998), while the difference between \( S_1 \) and \( S_2 \) might suggest how NIs and NNIs differ from each other.

4.3.2 Comparing NI and NNI tokens and types on the benchmark

The sets NI and NNI were compared against the benchmark wordlist in the following ways:

(1) NI and NNI tokens were ordered in the order of frequency that their corresponding types appear in the benchmark wordlist.

(2) Correlation coefficients were obtained between NI and NNI vs. those in the benchmark wordlist. Raw frequencies of lexical types in each 1,000-type rank in (JACET, 2003) were used for this procedure, and yielded 8 correlation coefficients.

4.3.3 Finding types with high keyness

We identified NI and NNI types with high keyness using the following procedure:

(1) Normalize NI and NNI token frequencies by calculating frequency ratios of NI and NNI tokens with respect to their maximum frequency counts.
Apply a chi-square test on NI and NNI type frequencies. This yields types with potentially high keyness.

Remove context-dependent words, because they are specific to the lesson being taught. We allow CE tokens uttered by our NIs and NNI (S₅, S₆, and S₇ in Figure 14) because discourse is expected in most if not all classroom interactions (HALL, 2000).

4.4 Results and analyses

This section focuses on NI and NNI speech, although learners were exposed to CD speech as well. First we show that our 4 NIs can be statistically treated as 1 group, and that our NNI is statistically similar to 5 other NNIs who use CLT to teach different classes. Next we statistically describe the data. We end with results and analyses of methods that were explained in section 4.3.

4.4.1 NI and NNI inter-instructor equivalence

We examined the similarities among the 3 NIs used in this study, and the 5 NNIs taken from video-taped lessons conducted in English (MEXT, 2012). Figures 15 and 16 show distributions of spoken tokens in respective subjects across the 8 ranks of the benchmark corpus. We combined the speech from the 3 NIs and treated them as a one set of data because one-way analysis of variance (ANOVA) of the utterance token distributions of the 3 NIs across the 8 ranks of the benchmark corpus showed no statistical significant differences among 3NIs.¹

One-way ANOVA of the utterance token distribution of our NNI and the 5 NNIs across the 8 ranks of the benchmark corpus also showed no statistical significant

¹ F(2, 21) = .0005, p = .9995.
differences among 6 NNIs. Therefore we tentatively propose that our NNI might be representative of similar NNIs, i.e., the 10 percent of all NNIs in Japan who mostly or totally use English language during their classes. We did not combine the speech of the 6 NNIs because they taught English classes to different students.

4.4.2 Classifying tokens and types

Table 7 shows descriptive statistics of the number of lexical tokens per classroom lesson. The NNI code-switched from English to Japanese on occasion (the NIs never did); hence the NNI has a larger standard deviation (SD) and a lower minimum. However the maximum number of tokens per lesson is comparable for NIs and the NNI, with similar means and maxima. Both NIs and the NNI seem equally capable of producing English tokens when the lesson context allows. The CD is used in 60% of all lessons and its number of tokens is roughly 20% compared to those of the NIs and the NNI.

The distribution of lexical types across $S_1$ and $S_7$ is shown in Figures 17 and 18. We found that the sizes of $S_4$ and $S_7$ are relatively large. We also found that $S_2$ is substantially larger than $S_1$ and $S_3$.

Based on the lexical types found in each set, along with the utterances in which the lexical types appeared, and teacher behavior in general, we surmise the following.

$S_7$ was large because every language depends on a relatively small set of words to express any idea, of course, but in this study the largeness of $S_7$ is pedagogically meaningful because it indicates similarities between the NIs and NNI. The greater the similarity, the greater the equivalence, hence the greater interchangeability exists between NIs and NNIs.

\[ F(5, 42) = .0001, p = .9999. \]
Further evidence of NI-NNI similarity was found in $S_4$ being larger than $S_5$ and $S_6$. Most instructors adapt to their learners without explicit guidelines of teaching conduct. Perhaps the instructors unconsciously adapted their vocabulary to their learners' capabilities (i.e., aid comprehension by adjusting their vocabulary) even though the instructors did not plan on doing so.

$S_2$ was markedly larger than $S_1$. The reason may be that NI lexical types remained fairly constant across lessons because NIs and students engaged in oral exchanges that were less dependent on textbook content, while NNI types varied across lessons because the NNI was responsible for introducing and reviewing new vocabulary when they appeared in the course material. This division of labor probably arose spontaneously because (a) the NNI was always present in class, knew what lexical types were being reviewed and what were being introduced, and drafted the lesson plan, whereas (b) the NIs were not present in every class, were not all trained as teachers, and were more comfortable being conversation partners.

In sum, the largeness of $S_4$ and $S_7$ suggests that NIs and NNIs tailor lexical types to their learners. The difference between $S_1$ and $S_2$ suggests that NIs repeat the same lexical types while NNIs cover a wider range.

4.4.3 Comparing NI and NNI tokens on the benchmark wordlist

4.4.3.1 NI and NNI tokens and types ranked in the order of the benchmark wordlist

Out of the 126,210 tokens in our classroom corpus, 103,218 tokens (82%) were found in the benchmark wordlist. The breakdown was NI 15,765 (85%), NNI 77,765 (81%), and CD 9,688 (87%).

Figure 19 shows the cumulative percentages of NI and NNI tokens for each 1,000-type rank of the benchmark wordlist.

As expected, coverage asymptotes quickly, and reaches 100% coverage only
at the end, reflecting the long tail of lexical type distribution even at the upper-beginner to lower-intermediate level of course content.

Figure 20 shows the number of lexical types preferred by either NI or NNI per 1,000-type rank of the benchmark wordlist. We found that NIs should produce more types in the essential type group to become NNI-like, and the NNI should produce more types in the 2-1,001 rank to become NI-like.

4.4.3.2 Correlation coefficients of lexical types vs. the benchmark wordlist

Figure 21 shows correlation coefficients of lexical types appearing in our data sets vs. the benchmark wordlist. We found that the correlation between the union set $S_4 \cup S_7$ and the benchmark is high for the 1,000 most common types, but that the correlation coefficients drop as a rough function of benchmark wordlist frequency (i.e., the less frequent the type, the lower the correlation tends to be). The union sets $S_5 \cup S_7$ and $S_6 \cup S_7$ both highly correlate with the 1,000 most common types, but not with others. Beyond the 1,000 most frequent types we see low or negative correlation between NI and NNI vs. the benchmark wordlist. These findings are consistent with the interpretation that the 1,000 most frequent types would form the very core vocabulary of all instructors, and that textbook materials relate to specific topics that lack the breadth and depth of written and spoken English from which the benchmark wordlist is drawn.

4.4.4 Types with high keyness

4.4.4.1 Normalized token frequencies

The first step in identifying NI and NNI types with high keyness is comparing normalized NI and NNI token frequencies. We calculated frequency ratios of NI and NNI tokens with respect to their maximum frequency counts, and examined their distributions (Figures 22 and 23).
Although the frequency plots appear similar (Figure 22), the distribution of types differs noticeably (Figure 23), showing that types with high keyness may exist.

4.4.4.2 Chi-squared test on type frequencies

The second step in identifying NI and NNI types with high keyness is finding high-key candidates. Treating NI and NNI tokens as constituting mutually independent sets, we used a chi-square test to compare type frequencies with respect to the entire number of tokens. Figure 24 shows a histogram of significant NI vs. NNI ratio differences, sorted in the order of difference magnitude. The 155 types found are high-key candidates, of which samples are shown in Tables 8 and 9.

4.4.4.3 Removal of content-dependent types

The third step in identifying NI and NNI types with high keyness is removing context-dependent types. Because such types are specific to the lesson being taught, they interfere with observing the unbiased language use of NIs and NNI. As mentioned in section 4.3.3, we did not remove CE tokens because discourse is expected in most if not all classroom interactions.

The context-dependent types we found were newly introduced types that appeared in the class textbook, e.g. "backpack," "chimpanzees," and "dome." we removed them because they were obviously being taught through explanations or drills. Had these types not been the focus of instruction, it is unlikely they would have appeared in our data.

A total of 25 context-dependent types were removed, yielding 130 high-key types (NI 87, NNI 43).

Finally, we added an arbitrary constraint to reduce the likelihood of accidentally selecting a high-key type. We chose to retain types that were realized by the NIs or NNI as at least 2 tokens on average for each class period they were present.
Hence we selected NIs high-key types appearing as no less than 18 tokens, because the NIs appeared in class 9 times. For the NNI it was 98 tokens for 49 class periods.

The resulting NI and NNI high-key types are shown in Tables 10 and 11. Table 10 contains personal pronouns (e.g., "you", "I", "he", "she", "they", "someone", "everyone", "anyone"), auxiliary verbs (e.g., "can", "could", "would"), interjections (e.g., "yes"), and other types that, as a whole, are often used for oral interaction between instructors and students. Table 11 contains imperatives (e.g., "look", "repeat", "check", "underline", "begin", "turn"), meta-instruction phrases (e.g., "question", "right", "textbook"), and meta-language phrases (e.g., "word", "phrase", "meaning") that are often used for textbook-based drill activities. Over 90% of the types in Tables 10 and 11 fall within the 2,000 most common types (Figure 19).

It is highly unlikely that the NIs are incapable of using types in Table 5, or that the NNI is ignorant of types in Table 4. What causes this skew?

As touched upon in section 4.4.2, NIs were more likely to use communicative types to engage in open-ended conversations with students. The NNI was more likely to engage in teaching moves regarding textbook material. We believe that the lexical differences between these 2 tables reflect the differences of teaching roles between the NIs and the NNI, instead of differences in language ability.

4.5 Conclusion and discussion for Project 2

We state our findings (section 4.5.1), implications to language pedagogy (section 4.5.2), limitations (section 4.5.3), and suggestions for further research (section 4.5.4).

4.5.1 Findings

Our data show no evidence that the NNI code-switched to Japanese because the NNI's English is limited compared to the NIs'. NIs and the NNI appear capable of
producing equal amounts of tokens per unit time (Table 7). $S_4$ and $S_7$ show that NIs and the NNI seem to share a common core vocabulary of both general English and CE (Figure 17). $S_4$ and $S_7$ also show high correlation with the 2000 most frequent word types in the benchmark (Figure 21). The similarity between NI and NNI lexical distributions (Figures 19 and 22) suggests that the NIs ($S_1 + S_3$) and the NNI ($S_2 + S_6$) employ comparable vocabulary sizes in the classroom.

The lexical types and tokens do differ between NIs and the NNI (Figure 20), but the semantic coverage of lexical types found with potentially high keyness (Figures 23 and 24, and Tables 10 and 11) is consistent with classroom observations that the NIs and NNI perform different roles in the classroom (partly based on the NIs' lack of teacher training and their infrequent presence in class), and that these different roles impose different interactions with students, resulting in different lexical choices.

At the present time, it appears that both NIs and NNIs share a sizeable core of vocabulary ($S_4$ and $S_7$), NIs teach vocabulary depth ($S_1$), and NNIs teach vocabulary breadth ($S_2$). If NIs and NNIs are equally effective -- or, at least they are effective for separate teacher roles -- then NIs and NNIs should be able to learn teaching content and techniques from each other to be better understood by learners. The popular presumption that NNIs cannot speak English and ought to unilaterally learn from NIs seems overly simplistic, as far as our data show.

4.5.2 Implications to language pedagogy

Both NIs and NNIs may benefit from the findings in our research. Perhaps NIs use lexical types in Table 10 more often because they are native speakers or because they engage in general-purpose conversations with students. The fact that the precise cause is unknown is irrelevant for practical purposes. NNIs desiring to become more NI-like (by either becoming more native-like or engaging in general-purpose
conversations) may do so, as a crude approximation, by using lexical types in Table 10. Conversely, NIs might become NNI-like (in teaching textbook content or managing the class) by using lexical types such as those in Table 11. Indeed, all that may be needed to cross-train NIs and NNIs may be to change their word-selection habits. Instead of lecturing NNIs to engage in open-ended oral queries using such-and-such phrases, for instance, NNIs could be encouraged to use personal pronouns more often. Conversely, NIs could be given a list of content words that, due to the classroom actions associated with those words, would help NIs assume NNI-like roles. This seemingly superficial claim presumes that NIs and NNIs are capable of modifying their behavior using implicit instruction by virtue of their language and teacher training. Testing this hypothesis on experienced in-service teachers would be of interest.

Less experienced or pre-service teachers might benefit from focusing on the vocabulary shared between NIs and NNIs. We believe that this common ground is part of the CE core vocabulary, with which teachers should become completely familiar. Developing sample phrases and examples of classroom interaction may prepare middle and high schools in Japan to teach English language using mostly or solely English.

4.5.3 Limitations

Our conclusions should be regarded as tentative because our data have limited size and variety. The tiny sample size obviously limits generalizing our conclusions. We are continuing efforts to expand our corpus. Unfortunately, developing teacher corpora from recorded data requires significant resources (O'Keeffe, McCarthy & Carter, 2007). For this study, we analyzed 3 NIs, and showed that our sole NNI is comparable with 5 other NNIs who teach different classes using CLT.

Including NNIs with various levels of L2 proficiency would allow us to better understand NNI issues. NNIs with different L1s would allow more global comparison.
The NIs lacked training and experience as teachers, and were not present during every class period. These factors must have affected the quality and quantity of spoken language. The NIs were native speakers of 3 varieties of English, however, improving the sample variance somewhat.

We do not necessarily consider as a limitation the fact that none of our NIs fluently spoke the learners' L1, although proficiency is certainly valuable. Even without knowing the learners' L1, many NIs can be trained as to how learners learn L2, and how the learners' L1 affects their L2.

4.5.4 Further research

Project 2 focused on lexical tokens and types in isolation. We need analyses involving word collocations, such as n-grams, or concordance lines using high-key tokens as nodes. Context-dependent analyses may help train teachers by showing examples of classroom phrases and interactions.

Another approach might use a core vocabulary wordlist such as (West, 1953) as a benchmark for analysis or teacher training. The fact that NIs taught with a limited vocabulary raises hopes of using minimal vocabulary to teach content (i.e., conveying information via L2, instead of focusing on teaching L2 itself).

4.5.5 Comprehensive use of English classroom corpora

Developing English classroom corpora required (1) video and/or audio recording of English classroom utterances, (2) watching and/or listening to the utterances, (3) transcribing the utterances, and (4) analyzing the discourse between instructors and students. We experienced these processes, although quantifying and analyzing (the final 2 processes) were our main concern. In the following project (Project 3), we will see whether such corpus developing and analyzing processes will be effective to train NNIs.
We will utilize all these processes so that NNIs can be trained to be better instructors. We will not only utilize the findings in Project 2, but further make use of classroom video clips through watching them for the instructors’ introspection and consultation with more experienced instructors.
Chapter 5  Use classroom corpora in training preservice teachers (Project 3)

5.1 Introduction

Project 3 is the final project in our doctoral research. The project tests to examine whether CLT training for NNIs using methods and findings used in Project 2 is effective or not. Figure 25 illustrates the role of Project 3 toward the doctoral research subjects and their objectives. It locates itself between the subjects and their objectives because the main purpose of Project 3 is to train NNIs who are to conduct CLT. Its position in the entire research area is closer to the research subjects than Project 2 is, for Project 2 gives grounds to facilitate Project 3, i.e., English teacher (NNI) education.

Building upon findings that classroom language corpora are effective in language teacher development, we wish to ascertain how spoken language corpora can help preservice English language teachers enrolled as college students in Japan. We define our use of spoken language corpora as one that includes not only using written corpora for consultation by learners (as for the teacher education, learners mean language teachers) but also recording (video-taping), transcribing and analyzing the transcription assisted by instructors as well as watching the video clips. The reason why we define it in a relatively broader sense is because (a) we wish to observe language teachers who need assistance in conducting their language lessons in the target language, and (b) these teachers may be incapable of autonomous corpus consultation where teachers "go through a process of self-discovery" (Tsui, 2004, p.59). Braun (2005) explains this difficulty:

. . . they [the users of a corpus] are isolated from the original discourses, but understanding can only be achieved when the discourse which gave rise to a text can be reconstructed. While our ability to create contexts in our mind normally enables us to comprehend many artifacts of language – texts as well
as concordances – even if we did not participate in the original discourse, this proves to be much more difficult for a learner. (pp. 52-53)

MEXT statistics (2008) show that English language learning is poor in Japan's junior and senior high schools; we assume that Japan's college student teachers are likewise poorly trained. We further assume that Japan's preservice teachers are not fluent in spoken English in general, and in classroom-oriented discourse in particular. Hence this study focuses on to what extent using language classroom corpora in a relatively broader sense will be effective to (a) reduce English language disfluencies such as fillers and repeats (Research question 1), and (b) improve the teachers' classroom discourse skills such as evaluation and follow-up interactions with students (Research question 2). We are also interested in how this instructor training involving classroom corpora would benefit the instructors (Research question 3). In the remainder of this paper, we describe the experiment and methods of analyses (section 5.2), the results and analyses (section 3), and our conclusions (section 4).

5.2 Materials and methods

This section describes the participants (section 5.2.1) and the experiment procedure (section 5.2.2), and how we examine the results (sections 5.2.3 and 5.2.4).

5.2.1 Participants

The experimental participants were 25 Japanese college seniors seeking certification as English language teachers. These students were taking the same series of teacher-training courses, and were scheduled to start their practice teaching in several weeks. We explained to the participants the purpose of the study and that they would remain anonymous. The participants consented in writing to the use in research of their transcribed speech obtained in the course of this study.

5.2.2 Classroom corpora and using corpora
The classroom corpora we used consisted of classroom video corpus (Katagiri & Kawai, 2008) and classroom English (Gardner & Gardner, 2000). The former contains over 10,000 native and non-native instructor classroom spoken tokens (approximately 18,500 and 96,500 tokens respectively) and recorded video files. The latter has basic classroom English words and expressions classified according to classroom transactions such as asking questions and giving commands. Although this compilation of classroom English does not result from transcribed instructor speech, we treat it as a mini-corpus that helps participants distinguish action verbs such as "listen" and "speak" found in the classroom video corpus.

From the classroom video corpus the participants saw three areas of interest: (1) N-grams that indicate frequently-occurring classroom English phrases, (2) instructor-student interactions, and (3) classroom discourse hierarchies (Sinclair & Coulthard, 1975, pp. 21-29) such as transactions, exchanges, and moves.

Corpora can be used in two ways: pre-made or in-house corpora can form the data set for analysis, and the process of building a corpus can itself be educational. In our treatment of the participants, we first video recorded the participants’ mock English lessons, had them transcribe their speech, and consulted with them to improve their classroom speech such as giving commands and asking questions.

5.2.3 Experiment procedure

Participants experienced the following chronological sequence:

1. Each participant joined with four others to form five groups of five participants each.

2. In a regular college classroom, each participant gave a 5-to-10-minute English language lesson at the junior high school level to the four other participants playing the part of students. The instructor's and students' behavior was
video-recorded. We refer to this as the pretest lesson.  

3. Participants viewed videos of the lesson they taught, transcribed and annotated all speech within their pretest lessons.  

4. Participants received transcriptions and annotations corrected by us, plus instructional comments on how to improve their teaching with regards to use of spoken language.  

5. Participants read transcriptions from classroom corpora, and viewed video recordings from a classroom corpus.  

6. Participants repeated step 2 above except that they taught using completely different lesson materials and lesson plans to decrease practice effect. We refer to this as the posttest lesson.  

7. Participants answered a survey that included introspective questions on their performance and whether classroom corpus training was effective (see Appendix M for list of questions).  

8. We, not the participants, transcribed and annotated the speech in the posttest lessons because there was no time to critique participants after the posttest.  

5.2.4 Transcription and annotation

Transcriptions served two purposes: to make participants conscious of their own speech behavior, and to compare pretest and posttest performances. The former purpose is better met by having participants transcribe their own speech, but the latter purpose is better achieved by trained transcribers. We chose a combined approach: (a) the participants (none of whom had transcribed or annotated speech before) used a smaller set of annotation tags taken from Linguistic Data Consortium (2004) and Sinclair and Coulthard (1975) rather than a larger set of tags such as in Izumi, Uchimoto, and Isahara (2004), and (b) we proofread the transcriptions partly to demonstrate to
participants how to annotate and partly to analyze the lexical content.

Table 12 shows our annotation categories and tags. The transcribed speech was annotated in three categories. Participants were instructed on all categories and tags. (The participants' knowledge and awareness of disfluencies and feedback became evident in their annotation precision or lack thereof.) Of particular interest to us were feedback elements that might partly indicate the instructor's classroom interaction skills.

5.2.5 Methods of analyses

We examined the annotated transcriptions of the participants' mock lesson speech with regard to disfluency, classroom discourse, and the number of spoken tokens. The procedure is as follows:

1. Extract the participants' speech that was annotated with the instructor tags.
2. Analyze quantitatively the number of occurrences and spoken tokens for each disfluency element, and classroom discourse element in the pretest and the posttest through paired two-sample t-test.
3. Calculate the participants' spoken tokens per unit time in the pretest and the posttest in which we normalize the length of teaching time in seconds, and compare the number of total spoken tokens in the pretest and the posttest.

5.3 Results and analyses

Sections 5.3.1 through 5.3.3 explain our quantitative data. Section 5.3.4 explains qualitative data.

5.3.1 Summary of spoken tokens and annotation tags

We refer to whole or partial words as spoken tokens. Table 13 shows descriptive statistics of spoken tokens and speech time duration in the pretest and the posttest.

The instructors on average spoke more tokens per unit time in the posttest
(34.9 vs. 46.8 tokens per minute). By this measure, their speech production increased. Instructors on average spoke more tokens per unit time in the posttest.

Figure 26 shows a histogram of disfluency and feedback occurrences in the pretest and the posttest. (Because each occurrence of a disfluency or feedback corresponds to an occurrence of a disfluency or feedback tag in the transcription, we treat their numbers as equivalent.) The left four pairs are the number of the instructors' disfluency occurrences, and the right two pairs are the number of feedback occurrences. Fillers and evaluation tags are prominent, as is an increase in follow-up occurrences. Among disfluencies, fillers far outnumber the rest. Repeats and revisions decreased in the posttest. Restarts were scarce. Among feedback interactions, both evaluation and follow-up occurrences increased. There were five follow-up occurrences in the pretest and 37 in the posttest. While the absolute gain is small, it is tempting to interpret this increase as an indication of the experimental participants' heightened awareness regarding this valuable type of feedback interaction.

5.3.2 Changes in classroom discourse occurrences

Among 6 elements in the classroom discourse (shown as 4 disfluency tags and 2 feedback tags in Table 12), paired two-sample t-test found significant differences in repeats\(^1\) and follow-ups\(^2\). Table 14 shows p-levels resulted from the paired t-tests.

Taken with the fact that there was a statistically significant difference in the number of repeat and follow-up occurrences between the pretest and the posttest, we see that (a) participants significantly improved in the classroom discourse fluency in terms of giving relatively clearer speech, (b) many participants produced more follow-up speech in the posttest, and (c) the number of evaluation occurrences depended on the

\(^{1}\) \(n = 22, p < .01\), two-tailed

\(^{2}\) \(n = 22, p < .01\), two-tailed
individual rather than a uniform pattern across all participants. This means that while the participants did not uniformly change how often they gave evaluation feedback (phrases such as "That's right." or "Good job." that tend to release the student from the dialogue), they clearly shifted towards giving follow-up feedback (phrases such as "Define that word." or "Give me an example." that encourage students to continue speaking after answering the instructor's initial question).

5.3.3 Changes in the number of spoken tokens

We will focus on participants’ changes in the number of spoken tokens. Table 15 shows the results of the paired two-sample t-test that compared the number of spoken tokens between the pretest and the posttest. The paired two-sample t-tests resulted in significant decrease in the number of repeat spoken tokens\(^3\), and significant increase in the number of spoken tokens per minute\(^4\). The significant decrease in the repeat tokens (Figure 26) may have contributed to the significantly more fluent classroom speech production of the participants.

Figure 27 displays a scatter plot of teaching time and spoken tokens uttered by the participants (\(n = 22\)) in the pretest and the posttest. Each participant's teaching time in seconds and the number of total spoken tokens are shown as open circles for the pretest and as filled dots for the posttest. The solid lines are the correlation regression lines (the slope rounded to two decimal places was 0.57 for the pretest and 0.67 for the posttest) meaning that speech rates rose from 34.2 spoken tokens per minute in the pretest to 40.2 in the posttest. Correlation was low in the pretest \((r = .49)\) but high for the posttest \((r = .81)\). Taken with the fact that the number of disfluent spoken tokens decreased in the posttest, this suggests that participants spoke more fluent phrases per

\[^3\] \(n = 22, p < .01, \) two-tailed
\[^4\] \(n = 22, p < .01, \) two-tailed
unit time in the posttest. (By "fluent phrases" we mean speech with less disfluencies, not necessarily fluid, spontaneous speech.)

The numbers of spoken tokens confirm what we found in the number of occurrences, namely (1) disfluencies decreased slightly but not uniformly over all participants, (2) follow-up phrases jumped from near-zero to a meaningful quantity, and (3) participants spoke more per unit time. The fact that participants read and viewed transcriptions from classroom corpora between the pretest and the posttest seems to have affected the participants' awareness and preference of what they say.

5.3.4 Survey

We asked participants ten questions about their experiences and views covering three categories: (i) prior experience, if any, in transcribing their own recorded speech (Q1), (ii) factors, if any, that contributed to improving their classroom speech (Q2 - Q6), and (iii) reflections on their experience with our classroom corpus training (Q7 - Q10). Twenty-one out of twenty-five participants responded. Sections 5.3.4.1 through 5.3.4.3 report results.

5.3.4.1 Category I

None of the participants had transcribed their speech before (Q1). This corroborates our perception that transcribing is chiefly a task for corpus linguists, and that it is rarely experienced by language learners.

5.3.4.2 Category II

How effective was each experiment procedural step after the pretest? Participants felt that corpora training enhanced their performance. Nineteen commented positively on corpora treatment, and fourteen specifically mentioned they learned the importance of follow-up feedback (Q2, Q3), which is corroborated by the increase of follow-up phrases in the posttest (Figure 2). Nineteen participants said they learned at
least something from the sample classroom corpus script that showed classroom interactions (Q4). Most write-in comments alluded to heightened awareness in organizing lessons and interacting with students (Q4).

During the experiment, participants saw video clips showing interactions between the instructor and the students in the classroom. Participants noticed (a) audio information such as word stress and inter-utterance pauses, and (b) visual information such as classroom atmosphere and facial expressions (Q5). One participant wrote, "We could know about the level of students' understanding because we could [see] their face." However, perceiving audio-visual cues does not directly translate to producing better teaching. Several participants complained that merely noticing teaching skills does not improve performance (e.g., "I learned teachers action and student's response. I tried to give some action in my lesson, but I couldn't." "I learned something, but I didn't improve."). A piece of corroborating evidence is the statistically identical number of disfluency elements in the pretest and the posttest.

Participants appreciated the instructor commenting on their transcriptions because participants could more confidently use morpho-syntactically correct, straightforward phrases that are appropriate for learners (e.g., "I learned about the grammatical mistakes or use the easy expressions to the students because they are junior high school students. And I could correct my wrong English to the exactly [sic] English." "I tried to use the corrected expressions and care about student's understanding.") (Q6). Participants raised awareness of their own spoken language by studying their own transcriptions and comments from experienced teachers. The conscious use of simpler and often wordier phrases may have contributed to the increase in the number of spoken tokens per unit time in the posttest (Figure 27).

5.3.4.3 Category III
Participants on the whole reflected positively on classroom corpus training. When asked about viewing their video corpus, the participants confessed they had not realized until then how important it was to examine their teaching from other points of view (Q7). One person wrote, "I learned that we have to stand student's view point and we have to explane [sic] clearly. And making motivation is also important." Watching themselves speaking in and teaching English forced them to confront their verbal behavior (such as pronunciation, word choice, and syntax in instruction and explanations) and non-verbal behavior (such as postures, gestures, eye-contact, and board work).

Fourteen respondents would recommend this training to students in the following year (Q8). One participant affirmed, "This project is very important experience when we become an English teacher." Another participant said that watching themselves on the video clips (with embarrassment) illuminated specific points for improvement such as asking questions and pronunciation.

Participants were reticent on their posttest performance (Q9). Only seven participants wrote introspective responses. Perhaps the rest of the participants felt they had not improved, at least not to the level they aspired to. Recall, however, that participants did improve in several significant ways (section 3.2). Some participants must have felt the same; one person wrote, "I could make work seat [worksheet] in detail. The most big factor is the advise [sic] of teacher. (Not transcribe, Not video colpus [sic])." Another person found the training useful and wrote, "I made good use of the specific points for improvement in my video clip suggested by the instructor though I felt embarrassed to see myself in my video-taped mock lesson [original text in Japanese]."

We welcomed suggestions from the participants for improving our corpus
training program (Q10). Eighteen respondents suggested ideas, of which some seem feasible. Some participants proposed improving the research design; a delayed posttest might measure skill retention (e.g., "Why don't you do the post post test after the post test?" "I think we should teach same lesson each group. And give some coments [sic] and advises [sic] to their lesson [lessons]. And discuss each other. Finally, on second lesson, we teach same lesson."). Participants sought tangible improvement by repeating the pretest lesson in the posttest. (We chose not to do this in our study.) Comparing results from identical lesson plans might show differences in individual improvement, and yield different results (e.g, "I wish we had more lectures between the pretest and the posttest because it was too soon before we had the posttest [translated by the author].")

5.4 Conclusion and discussion for Project 3

This section describes answers to the research questions (section 5.4.1), implication to pedagogy (section 5.4.2), our future work (section 5.4.3), and concluding remarks (section 5.4.4).

5.4.1 Answers to research questions

Our first research question asked whether using corpora for preservice teacher training could promote fluency when they teach English through English. Paired two-sample t-test did not show a significant decrease in all disfluency elements except for repeats (section 5.3.2). However, the observed increase in fluent tokens per unit time (Table 15 and Figure 27) may mean that fluency improves when teachers study classroom corpora, transcribe their own speech, examine their own transcriptions, and receive guidance from instructors.

As for the answer to our second research question that asked how preservice teachers' interaction with students in the mock lessons would be improved, we can conclude that the participants improve their follow-up speech, although we do not
observe changes in the evaluation speech (section 5.3.2).

Written survey after the posttest showed that teacher training using corpora is effective in at least three ways. (1) Participants raised awareness in interactions with the students in the classroom discourse, which proved to be significantly improved as argued in section 5.3.2. This was due to several types of information not only verbal (recorded audio speech), but also nonverbal cues such as classroom atmosphere, and the students’ facial expressions. (2) Explicitly mentoring the participants by using the transcribed mock lesson speech helped them with the use of easy-to-understand classroom English instructions and explanations. (3) Participants claimed reviewing their own transcriptions and getting feedback on their transcriptions from their mentor helped them improve their mock lesson speech.

However, noticing good points in classroom discourse did not directly improve the participants’ performance in conducting lessons for some participants though they recognized that they needed to improve directive teaching skills. We might need more participants, and/or need to conduct a delayed posttest to examine why this was so.

5.4.2 Implications to pedagogy

We believe preservice teachers benefit from training involving corpora in two ways: (1) anticipate and control their own classes by carefully observing other teachers' classes through video recordings, transcriptions, and annotations, and (2) raise awareness of their own behavior and learn how to give clear explanations and pose effective questions through transcribing and annotating their own speech. We recommend that all preservice teachers receive corpora-based training, because it seems clear that observations and self-introspections are beneficial, even at this primitive stage of developing training materials that involve corpora. In-service teachers may wish to experience corpora during their recurrent training.
5.4.3 Future work

We are unaware of other corpora involving Japanese college students seeking teaching certificates in any participant (but Lemov (2010) trains in-service American teachers using untranscribed video clips accompanied with running commentary). Our corpus is small, which is just as Moreno and O'Riordan (2006) point out "resources in the form of corpora of classroom discourse are not yet easily available" (p. 100) majorly because building spoken corpora such as classroom teacher corpora is "time-consuming to assemble" (O'Keeffe, McCarthy & Carter, 2007, p. 2); we plan to expand it by continuing to train student teachers. Our next steps include improving our teaching plan (e.g., train student teachers to say or suppress disfluencies at will) and possibly extending the teaching period (e.g., require student teachers to practice various phrases for follow-up interactions). These steps may be indirectly applicable to participants other than English language. We will quantify the speech produced by students (i.e., participants acting as learners) to see how the teachers' speech affects the speech production of students.

5.4.4 Concluding remarks

Project 3 examined the effectiveness of training NNIs through utilizing English classroom corpora, and incorporating ways to develop classroom corpora, i.e., transcribe NNIs' own recorded classroom speech. We gained effective results in reducing the repeat occurrences categorized as disfluency, and increasing follow-up occurrences categorized as feedback. NNIs’ improvement in their mock lesson performances in the posttest signifies effectiveness of using English classroom corpora, which includes not only transcriptions, but also video and audio information both verbal and non-verbal, and transcribing the classroom speech for themselves followed by mentoring sessions. Such processes may take relatively long a time, however, they
deserve the effort in order to facilitate CLT.
Chapter 6 Conclusion

The preceding 3 chapters detailed our doctoral project that consisted of 3 projects whose research objectives were to seek answers to improve the unproductive and uncommunicative English education discussed in Chapter 1. The 3 projects' overviews were illustrated in Figures 3, 13, and 25 in respective Chapters 3, 4, and 5, and now they have constituted the entire doctoral project overview that has already been illustrated in Figure 1. This chapter concludes our doctoral project by discussing findings (Section 6.1), significance (Section 6.2), and further research (Section 6.3).

6.1 Findings

Enabling English classroom discourse by non-native instructors is feasible based on the following research findings. They respectively answer the 3 research questions we discussed in Chapter 1.

(1) Factors that predict CLT are (a) use of English instructions (b) not using Japanese, (c) using English to communicate, and (d) pair work in English.

(2) Classroom English core vocabulary items exist shared by NIs and NNI, and differences in vocabulary items exist in those that are NIs' role-dependent. However, they are assumed to be attainable by NNIs.

(3) Utilizing classroom corpus (both transcriptions, annotations, and audios and video clips) improve preservice non-native English instructors' classroom fluency and follow-up discourse.

We planned Project 1, and conducted a survey to reveal what factors underlay the unproductive and uncommunicative English education. Defining a good model through SEM analyses showed what could make CLT feasible. Project 2 started as a classroom corpus development to help English non-native instructors in order to show linguistic evidence that non-native instructors' utterances are not inferior to native
instructors in terms of lexical frequency distributions. The lexical items proved to be role-dependent, which means both NIs and NNIs can make contribution to respective counterparts when giving instructions to and having interactions with their learners. The fact that NIs and NNIs share core vocabulary items is encouraging because it is an attainable goal to preservice and novice NNIs.

Our final project revealed that developing classroom corpora could comprehensively help preservice teachers become relatively more fluent and more interactive with their learners. This fact may serve to improve NNIs' use of CLT in English language classroom over this nation.

6.2 Significance of the doctoral project

It seems that full implementation of CLT in senior high schools are just around the corner. The NNI survey we conducted for Project 1 revealed positive results that CLT feasibility can be predicted through the measured variables such as use of English instructions and pair work in English.

We hope this paper generates interest among the speech processing community to (a) engage at a larger scale in quantitative research of CLT classroom behavior by NIs and NNIs, and (b) quantify English production and reception by analyzing spoken interactions between instructors and learners in classrooms (which Project 2 has not done). We also hope that such research methods and findings from the speech processing community will aid language teacher training program administrators, language learning policy-makers, NIs, and NNIs in becoming cognizant of the instructors' developed or latent talents in English competences that are locked unused due to many possible obstacles surrounding them.

We believe preservice teachers benefit from training that involves classroom corpora in two ways: (1) anticipate and control their own classes by carefully observing
other teachers' classes through video recordings, transcriptions, and annotations, and (2) raise awareness of their own behavior and learn how to give clear explanations and pose effective questions through transcribing and annotating their own speech. We recommend that all preservice teachers receive corpora-based training, because it seems clear that observations and self-introspections are beneficial, even at this primitive stage of developing training materials that involve corpora. In-service teachers may wish to experience corpora during their recurrent training.

**6.3 Further research**

The series of our doctoral projects have at least 3 suggestions for further research that remain unanswered. Firstly, Project 1 that surveyed NNIs in Hokkaido Island may not be broad enough to cover the entire nation. Such survey can be expandable to entail NNIs in as many high schools as this nation holds. In addition, we still have unproved elements that Sato (2002) described such as difficulty with classroom management and lack of preparation time. The questionnaire might need revising so that they will measure NNI CLT feasibility more precisely. We expect other researchers to conduct further and more thorough survey on NNIs throughout the nation. Eventually, results of such broader survey will enhance the use of communicative English language instructions by NNIs in the future.

Secondly, Project 2 suggested the NNIs' lexical items compatibility with those of NIs in English language classrooms. However, developing classroom corpus still needs far more videotaping of more various NNIs as well as accumulating video transcriptions of interactions with their learners and also among learners themselves. Larger scale studies encompassing chronological and spatial differences are needed.

Finally, findings in the use of corpora to train preservice instructors need to be tested upon training in-service teachers also who are willing to be “fluent” in classroom
English language. In conducting such projects, it would be necessary to ask a lot of in-service NNIs to spare a lot of time for recording their lessons, transcribing, and annotating their speeches. We believe it is worthwhile to try because such projects would provide evidence to analyze furthermore the NNI classroom speech characteristics and second/foreign language acquisition, which would eventually lead to more productive and more communicative English education in Japan.
Table 1

*Number of High School Responses*

<table>
<thead>
<tr>
<th>High Schools in Hokkaido</th>
<th>Multiple-choice $^a$</th>
<th>Write-in $^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$(n = 310)$</td>
<td>$(n = 150)$</td>
</tr>
<tr>
<td>Public</td>
<td>257</td>
<td>130 (50.6%)</td>
</tr>
<tr>
<td>Private</td>
<td>53</td>
<td>20 (37.7%)</td>
</tr>
<tr>
<td>Sum</td>
<td>310</td>
<td>150 (48.4%)</td>
</tr>
</tbody>
</table>

*Note.* $^a$ All responders (48.4% of the high schools we contacted) answered the multiple-choice questions. $^b$ Write-in answers were inseparable from the multiple-choice answers. Roughly half of the respondent schools (55.3%) enclosed the write-in answers.
### Table 2

**Number of English Teacher Responses**

<table>
<thead>
<tr>
<th>Number of NN English Teachers</th>
<th>Multiple-choice</th>
<th>Write-in</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(n = 930 out of 1671)</em></td>
<td><em>(n = 312)</em></td>
<td><em>(n = 150)</em></td>
</tr>
<tr>
<td>Questionnaires sent to</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Public</em></td>
<td>771 out of 1281</td>
<td>26 (20.5%)</td>
</tr>
<tr>
<td><em>Private</em></td>
<td>159 out of 390</td>
<td>50 (12.8%)</td>
</tr>
<tr>
<td><em>Sum</em></td>
<td>930 out of 1671</td>
<td>312 (18.7% [33.5%])</td>
</tr>
</tbody>
</table>

*Note.*

a We sent questionnaires to 930 NN English teachers (whose first language was Japanese) out of the entire 1671 on Hokkaido Island, and received responses from 342 (20.4 percent coverage) of them. NN = non-native  
b From the 342 responses, we removed 30 responses that (a) did not grant us consent to use them in our research, or (b) contained illegible responses or marking more than one multiple-choice answer. We could never have achieved 100-percent coverage because although there are 1281 public high school (HS) teachers and 390 private HS teachers on the island, we asked 771 and 159 respectively to participate.  
c All respondents answered the multiple-choice questions. Roughly 40 percent of the respondents answered the write-in questions.
<table>
<thead>
<tr>
<th>Research variable: Variable name</th>
<th>Measured variable number</th>
<th>Description</th>
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<tbody>
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<td></td>
<td>1</td>
<td>Teaching aim</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Use of no Japanese during English class</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Use of English for instruction</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Use of native English speakers’ sound</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Use of English to communicate with students</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Peer-to-peer use of English to communicate</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Use of team teaching with ALTs</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Understanding English grammar</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Communicating with ALTs</td>
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<tr>
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<td>10</td>
<td>Talking in pairs in English</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Being able to understand instructor’s English</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>ALT teaching grammar</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>ALT explaining English words, phrases and idioms</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>ALT speaking English to instruct students</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>ALT communicating with students in English</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>ALT engaging students in English communication</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Teacher belief agreeing with own teaching</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>Disciplining students over teaching English</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>School chores over teaching English</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Participating in seminars for development</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>Colleagues teaching in oral method</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>Student motivation to study English</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>Homogeneity of student English language skills</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>Being able to conduct all-English lessons</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>Wanting to conduct all-English lessons depending of students’ levels of understanding</td>
</tr>
</tbody>
</table>

Table 3

*Question Items as Measured Variables (α = 0.80)*
Table 4

*Correlation Matrix among 4 Research Variables*

<table>
<thead>
<tr>
<th></th>
<th>$V_1$</th>
<th>$V_2$</th>
<th>$V_3$</th>
<th>$V_4$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$V_1$: Teaching goal and methods</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$V_2$: Expectation to students</td>
<td>0.63</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$V_3$: Teaching environment</td>
<td>0.66</td>
<td>0.71</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>$V_4$: CLT feasibility</td>
<td>0.83</td>
<td>0.26</td>
<td>0.31</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note.* The four variables are represented by 7, 4, 12, and 2 measured variables respectively. The numbers of responses for $V_1$, $V_2$, $V_3$, and $V_4$ are 2184, 1248, 3744, and 624 respectively.
Table 5

**SEM Model Test Results**

<table>
<thead>
<tr>
<th>Model (Path coefficient)</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$\chi^2/df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$V_1 \rightarrow V_4$ (0.78)</td>
<td>69.1</td>
<td>26</td>
<td>&lt; .01</td>
<td>2.65</td>
</tr>
<tr>
<td>$V_2 \rightarrow V_4$ (0.38)</td>
<td>108.98</td>
<td>8</td>
<td>0</td>
<td>13.62</td>
</tr>
<tr>
<td>$V_3 \rightarrow V_4$ (0.44)</td>
<td>405.2</td>
<td>76</td>
<td>0</td>
<td>5.33</td>
</tr>
<tr>
<td>$V_2 \rightarrow V_1$ (0.58)</td>
<td>212.96</td>
<td>43</td>
<td>0</td>
<td>4.95</td>
</tr>
<tr>
<td>$V_3 \rightarrow V_1$ (0.59)</td>
<td>607.72</td>
<td>151</td>
<td>0</td>
<td>4.02</td>
</tr>
</tbody>
</table>

*Note.* Model $V_X \rightarrow V_Y$ represents causal relationship where $V_X$ and $V_Y$ mean exogenous and endogenous variables respectively.

$\chi^2/df = $ relative/normed chi-square.

*Acceptable index values are shown in boldface.
### Table 6

**Fit Indices for SEM Models**

<table>
<thead>
<tr>
<th>Model (Path coefficient)</th>
<th>Goodness of fit index (cutting point&lt;sup&gt;1&lt;/sup&gt; shown below)</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMSEA [90% CI]</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GFI &gt;= .90 AGFI &gt;= .90 NFI &gt;= .90 CFI &gt;= .90 RMSEA &lt; .08 SRMR &lt; .08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V&lt;sub&gt;1&lt;/sub&gt; → V&lt;sub&gt;4&lt;/sub&gt; (0.78)</td>
<td></td>
<td>0.95</td>
<td>0.91</td>
<td>0.91</td>
<td>0.92</td>
<td>0.94</td>
<td>0.07 [.05, .09]</td>
<td>0.05</td>
</tr>
<tr>
<td>V&lt;sub&gt;2&lt;/sub&gt; → V&lt;sub&gt;4&lt;/sub&gt; (0.38)</td>
<td></td>
<td>0.91</td>
<td>0.75</td>
<td>0.82</td>
<td>0.69</td>
<td>0.83</td>
<td>0.20 [.17, .24]</td>
<td>0.13</td>
</tr>
<tr>
<td>V&lt;sub&gt;3&lt;/sub&gt; → V&lt;sub&gt;4&lt;/sub&gt; (0.44)</td>
<td></td>
<td>0.85</td>
<td>0.79</td>
<td>0.42</td>
<td>0.35</td>
<td>0.46</td>
<td>0.12 [NA, NA]</td>
<td>0.10</td>
</tr>
<tr>
<td>V&lt;sub&gt;2&lt;/sub&gt; → V&lt;sub&gt;1&lt;/sub&gt; (0.58)</td>
<td></td>
<td>0.89</td>
<td>0.82</td>
<td>0.83</td>
<td>0.81</td>
<td>0.85</td>
<td>0.11 [.10, .13]</td>
<td>0.09</td>
</tr>
<tr>
<td>V&lt;sub&gt;3&lt;/sub&gt; → V&lt;sub&gt;1&lt;/sub&gt; (0.59)</td>
<td></td>
<td>0.84</td>
<td>0.80</td>
<td>0.56</td>
<td>0.57</td>
<td>0.62</td>
<td>0.10 [NA, NA]</td>
<td>0.09</td>
</tr>
</tbody>
</table>

**Note.** Model V<sub>X</sub> → V<sub>Y</sub> represents causal relationship where V<sub>X</sub> and V<sub>Y</sub> mean exogenous and endogenous variables respectively. Index values that clear the cutting point are shown in boldface.

GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = Bentler-Bonett index or normed fit index, NNFI = Non-Normed Fit Index or Tucker-Lewis index, CFI = Bentler’s comparative fit index, RMSEA = root mean square error of approximation index, CI = confidence interval, NA = not available, SRMR = standardized root mean square residual.

<sup>1</sup>Traditional cut-off points that are less strict are applied (Hooper *et al*., 2008).
Table 7

Summary of the Number of Tokens per Lesson

<table>
<thead>
<tr>
<th></th>
<th>NI</th>
<th>NNI</th>
<th>CD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum</td>
<td>18,572</td>
<td>96,460</td>
<td>11,178</td>
<td>126,210</td>
</tr>
<tr>
<td>Mean</td>
<td>2,064</td>
<td>1,969</td>
<td>373</td>
<td>2,576</td>
</tr>
<tr>
<td>SD</td>
<td>769</td>
<td>901</td>
<td>208</td>
<td>936</td>
</tr>
<tr>
<td>Min</td>
<td>1,171</td>
<td>222</td>
<td>73</td>
<td>496</td>
</tr>
<tr>
<td>Max</td>
<td>3,374</td>
<td>3,456</td>
<td>997</td>
<td>4,533</td>
</tr>
<tr>
<td>NC</td>
<td>9</td>
<td>49</td>
<td>30</td>
<td>49</td>
</tr>
</tbody>
</table>

Note. Means and SD were rounded at the first decimal place. NC is the number of classes the NIs and the NNI appeared in.
### Table 8

**Top-15 NI High-key Candidates**

The top-15 NI high-key candidates (i.e., lexical types with the greatest NI vs. NNI ratio differences) are shown below. Not all candidates are true high-key types. For instance, "torch" is a content-dependent type that will be removed later.

<table>
<thead>
<tr>
<th>Candidate</th>
<th>NI</th>
<th>NNI</th>
<th>NI - NNI</th>
</tr>
</thead>
<tbody>
<tr>
<td>guy</td>
<td>-12.52</td>
<td>-36.51</td>
<td>23.99</td>
</tr>
<tr>
<td>anyone</td>
<td>-16.69</td>
<td>-33.50</td>
<td>16.81</td>
</tr>
<tr>
<td>wonder</td>
<td>-21.46</td>
<td>-36.51</td>
<td>15.05</td>
</tr>
<tr>
<td>torch</td>
<td>-21.46</td>
<td>-36.51</td>
<td>15.05</td>
</tr>
<tr>
<td>full</td>
<td>-22.25</td>
<td>-36.51</td>
<td>14.25</td>
</tr>
<tr>
<td>theater</td>
<td>-22.25</td>
<td>-36.51</td>
<td>14.25</td>
</tr>
<tr>
<td>someone</td>
<td>-16.02</td>
<td>-29.52</td>
<td>13.50</td>
</tr>
<tr>
<td>might</td>
<td>-23.22</td>
<td>-36.51</td>
<td>13.29</td>
</tr>
<tr>
<td>afraid</td>
<td>-23.22</td>
<td>-36.51</td>
<td>13.29</td>
</tr>
<tr>
<td>mountain</td>
<td>-23.22</td>
<td>-36.51</td>
<td>13.29</td>
</tr>
<tr>
<td>dangerous</td>
<td>-23.22</td>
<td>-36.51</td>
<td>13.29</td>
</tr>
<tr>
<td>excited</td>
<td>-23.22</td>
<td>-36.51</td>
<td>13.29</td>
</tr>
<tr>
<td>movie</td>
<td>-18.45</td>
<td>-31.74</td>
<td>13.29</td>
</tr>
<tr>
<td>apple</td>
<td>-20.79</td>
<td>-33.50</td>
<td>12.71</td>
</tr>
<tr>
<td>shopping</td>
<td>-20.79</td>
<td>-33.50</td>
<td>12.71</td>
</tr>
</tbody>
</table>
Table 9

*Top-15 NNI High-key Candidates*

The top-15 NNI high-key candidates (i.e., lexical types with the greatest NI vs. NNI ratio differences) are shown below.

<table>
<thead>
<tr>
<th>Candidate</th>
<th>NI</th>
<th>NNI</th>
<th>NI - NNI</th>
</tr>
</thead>
<tbody>
<tr>
<td>underline</td>
<td>-29.24</td>
<td>-12.21</td>
<td>-17.03</td>
</tr>
<tr>
<td>forty</td>
<td>-29.24</td>
<td>-14.15</td>
<td>-15.09</td>
</tr>
<tr>
<td>textbook</td>
<td>-29.24</td>
<td>-15.11</td>
<td>-14.13</td>
</tr>
<tr>
<td>CD</td>
<td>-29.24</td>
<td>-15.64</td>
<td>-13.60</td>
</tr>
<tr>
<td>page</td>
<td>-21.46</td>
<td>-8.26</td>
<td>-13.20</td>
</tr>
<tr>
<td>phrase</td>
<td>-29.24</td>
<td>-16.38</td>
<td>-12.86</td>
</tr>
<tr>
<td>thirty</td>
<td>-29.24</td>
<td>-16.64</td>
<td>-12.60</td>
</tr>
<tr>
<td>look</td>
<td>-19.70</td>
<td>-8.18</td>
<td>-11.52</td>
</tr>
<tr>
<td>begin</td>
<td>-26.23</td>
<td>-15.30</td>
<td>-10.93</td>
</tr>
<tr>
<td>fifty</td>
<td>-26.23</td>
<td>-15.90</td>
<td>-10.33</td>
</tr>
<tr>
<td>reading</td>
<td>-26.23</td>
<td>-16.64</td>
<td>-9.59</td>
</tr>
<tr>
<td>eight</td>
<td>-24.47</td>
<td>-15.08</td>
<td>-9.39</td>
</tr>
<tr>
<td>meaning</td>
<td>-23.22</td>
<td>-13.98</td>
<td>-9.24</td>
</tr>
<tr>
<td>verb</td>
<td>-24.47</td>
<td>-15.50</td>
<td>-8.97</td>
</tr>
<tr>
<td>turn</td>
<td>-24.47</td>
<td>-15.72</td>
<td>-8.76</td>
</tr>
</tbody>
</table>
Table 10

**NI Lexical Types with High Keyness**

The NIs used 51 types significantly more frequently than the NNI ($p < .001$) without regard to topics of the lessons. These might constitute NIs' core vocabulary when conducting lessons. The least frequent type's frequency was -16.69 dB relative to the maximum value of 840.

<table>
<thead>
<tr>
<th>Type</th>
<th>$f$ [dB]</th>
<th>Type</th>
<th>$f$ [dB]</th>
<th>Type</th>
<th>$f$ [dB]</th>
</tr>
</thead>
<tbody>
<tr>
<td>be</td>
<td>0.00</td>
<td>about</td>
<td>-10.38</td>
<td>just</td>
<td>-13.80</td>
</tr>
<tr>
<td>you</td>
<td>-2.54</td>
<td>like</td>
<td>-10.49</td>
<td>true</td>
<td>-14.06</td>
</tr>
<tr>
<td>and</td>
<td>-2.88</td>
<td>but</td>
<td>-10.55</td>
<td>any</td>
<td>-14.33</td>
</tr>
<tr>
<td>so</td>
<td>-4.63</td>
<td>who</td>
<td>-10.92</td>
<td>could</td>
<td>-14.33</td>
</tr>
<tr>
<td>I</td>
<td>-4.76</td>
<td>can</td>
<td>-11.05</td>
<td>his</td>
<td>-14.33</td>
</tr>
<tr>
<td>it</td>
<td>-5.06</td>
<td>would</td>
<td>-11.18</td>
<td>little</td>
<td>-15.26</td>
</tr>
<tr>
<td>of</td>
<td>-6.76</td>
<td>why</td>
<td>-11.39</td>
<td>talk</td>
<td>-15.26</td>
</tr>
<tr>
<td>that</td>
<td>-6.99</td>
<td>know</td>
<td>-11.84</td>
<td>most</td>
<td>-15.26</td>
</tr>
<tr>
<td>go</td>
<td>-7.54</td>
<td>because</td>
<td>-11.92</td>
<td>everyone</td>
<td>-15.44</td>
</tr>
<tr>
<td>not</td>
<td>-7.78</td>
<td>how</td>
<td>-12.08</td>
<td>much</td>
<td>-15.63</td>
</tr>
<tr>
<td>he</td>
<td>-8.38</td>
<td>then</td>
<td>-12.17</td>
<td>maybe</td>
<td>-15.63</td>
</tr>
<tr>
<td>yes</td>
<td>-8.79</td>
<td>my</td>
<td>-12.34</td>
<td>someone</td>
<td>-16.02</td>
</tr>
<tr>
<td>say</td>
<td>-8.99</td>
<td>guy</td>
<td>-12.52</td>
<td>yourself</td>
<td>-16.02</td>
</tr>
<tr>
<td>or</td>
<td>-9.56</td>
<td>group</td>
<td>-12.52</td>
<td>him</td>
<td>-16.02</td>
</tr>
<tr>
<td>they</td>
<td>-9.70</td>
<td>false</td>
<td>-12.52</td>
<td>bit</td>
<td>-16.23</td>
</tr>
<tr>
<td>think</td>
<td>-10.16</td>
<td>thank</td>
<td>-12.62</td>
<td>great</td>
<td>-16.46</td>
</tr>
<tr>
<td>people</td>
<td>-10.27</td>
<td>she</td>
<td>-12.81</td>
<td>anyone</td>
<td>-16.69</td>
</tr>
</tbody>
</table>
Table 11

**NNI Lexical Types with High Keyness**

The NNI used 41 types significantly more frequently than the NI ($p < .001$) without regard to topics of the lessons. These might constitute the NNI's core vocabulary when conducting lessons. The least frequent type's frequency was -16.38 dB relative to the maximum value of 4,475.

<table>
<thead>
<tr>
<th>Type</th>
<th>$f$ [dB]</th>
<th>Type</th>
<th>$f$ [dB]</th>
<th>Type</th>
<th>$f$ [dB]</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>0.00</td>
<td>next</td>
<td>-10.12</td>
<td>everybody</td>
<td>-14.69</td>
</tr>
<tr>
<td>this</td>
<td>-5.17</td>
<td>let's</td>
<td>-10.51</td>
<td>eight</td>
<td>-15.08</td>
</tr>
<tr>
<td>your</td>
<td>-6.92</td>
<td>underline</td>
<td>-12.21</td>
<td>textbook</td>
<td>-15.11</td>
</tr>
<tr>
<td>look</td>
<td>-8.18</td>
<td>listen</td>
<td>-12.49</td>
<td>begin</td>
<td>-15.30</td>
</tr>
<tr>
<td>page</td>
<td>-8.26</td>
<td>section</td>
<td>-13.12</td>
<td>nine</td>
<td>-15.47</td>
</tr>
<tr>
<td>all</td>
<td>-8.43</td>
<td>an</td>
<td>-13.24</td>
<td>verb</td>
<td>-15.50</td>
</tr>
<tr>
<td>at</td>
<td>-8.49</td>
<td>twenty</td>
<td>-13.48</td>
<td>CD</td>
<td>-15.64</td>
</tr>
<tr>
<td>will</td>
<td>-8.66</td>
<td>six</td>
<td>-13.63</td>
<td>turn</td>
<td>-15.72</td>
</tr>
<tr>
<td>please</td>
<td>-8.79</td>
<td>meaning</td>
<td>-13.98</td>
<td>book</td>
<td>-15.90</td>
</tr>
<tr>
<td>on</td>
<td>-8.96</td>
<td>seven</td>
<td>-14.00</td>
<td>fifty</td>
<td>-15.90</td>
</tr>
<tr>
<td>word</td>
<td>-9.14</td>
<td>check</td>
<td>-14.00</td>
<td>last</td>
<td>-15.94</td>
</tr>
<tr>
<td>right</td>
<td>-9.36</td>
<td>again</td>
<td>-14.00</td>
<td>repeat</td>
<td>-16.05</td>
</tr>
<tr>
<td>question</td>
<td>-9.41</td>
<td>forty</td>
<td>-14.15</td>
<td>phrase</td>
<td>-16.38</td>
</tr>
<tr>
<td>up</td>
<td>-9.49</td>
<td>today</td>
<td>-14.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 12

Annotation Categories and Tags

The transcribed speech was annotated in 3 categories. Speaker: the person playing the part of the instructor ("instructor"), the student interacting one-on-one with the instructor ("st"), or all students responding in chorus ("sts"). Disfluencies: fillers, repetitions, revisions, and restarts. Feedback: comments such as "That's right." or "Good job." that tend to terminate the interaction ("evaluation") and probing questions such as "Can you give me an example?" or "Use that word in a sentence." that continue the interaction ("follow-up").

<table>
<thead>
<tr>
<th>Category</th>
<th>Tag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaker</td>
<td>instructor</td>
</tr>
<tr>
<td>Disfluency</td>
<td>filler</td>
</tr>
<tr>
<td>Feedback</td>
<td>evaluation</td>
</tr>
</tbody>
</table>
Table 13

**Descriptive Statistics of Instructors’ Spoken Tokens and Speech Time Duration**

The instructors' spoken tokens were counted and the speech time duration measured for the pretest and the posttest. The instructors on average spoke more tokens per unit time in the posttest (34.9 vs 46.8 tokens per minute). By this measure, their speech production increased.

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of instructors*</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Number of spoken tokens ($s_i$)</td>
<td>7344</td>
<td>8759</td>
</tr>
<tr>
<td>Mean $s_i$</td>
<td>319.3</td>
<td>398.1</td>
</tr>
<tr>
<td>Standard Deviation of $s_i$</td>
<td>123.9</td>
<td>111.6</td>
</tr>
<tr>
<td>Minimum $s_i$</td>
<td>120</td>
<td>278</td>
</tr>
<tr>
<td>Maximum $s_i$</td>
<td>601</td>
<td>583</td>
</tr>
<tr>
<td>Range of $s_i$</td>
<td>481</td>
<td>305</td>
</tr>
<tr>
<td>Mean teaching time in seconds</td>
<td>556</td>
<td>519</td>
</tr>
<tr>
<td>Mean spoken tokens per minute</td>
<td>34.9</td>
<td>46.8</td>
</tr>
</tbody>
</table>

*Note.* *23 instructors among 25 who initially signed up for the survey showed up on the day of the pretest. 22 appeared in the posttest.*
Table 14

Classroom Discourse Tag Occurrence Comparison Results

The table below shows $p$-levels of the paired two-sample $t$-test results. Classroom discourse tag occurrences were compared between the pretest and the posttest. Of the two discourse categories (disfluency and feedback), repeat and follow-up occurrences differed significantly at 1% $\alpha$ level in the paired two-sample $t$-test.

<table>
<thead>
<tr>
<th>Category</th>
<th>Variable</th>
<th>$p$-level (two-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disfluency</td>
<td>Filler</td>
<td>0.313</td>
</tr>
<tr>
<td></td>
<td>Repeat</td>
<td>0.009*</td>
</tr>
<tr>
<td></td>
<td>Revision</td>
<td>0.333</td>
</tr>
<tr>
<td></td>
<td>Restart</td>
<td>0.218</td>
</tr>
<tr>
<td>Feedback</td>
<td>Evaluation</td>
<td>0.167</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>0.002*</td>
</tr>
</tbody>
</table>

*Note. * $p < .01$
Table 15

**Word Count Comparison Results**

The table below shows $p$-levels of the paired two-sample $t$-test results. In addition to the number of spoken tokens for the 6 variables, spoken tokens per minute (categorized as fluency) were compared between the pretest and the posttest. The number of repeat and follow-up spoken tokens differed significantly at 1% $\alpha$ level as their occurrences did in the paired two-sample $t$-test. Spoken tokens per minute also cleared the same significance level.

<table>
<thead>
<tr>
<th>Category</th>
<th>Variable</th>
<th>$p$-level (two-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disfulency</td>
<td>Filler</td>
<td>0.313*</td>
</tr>
<tr>
<td></td>
<td>Repeat</td>
<td>0.001**</td>
</tr>
<tr>
<td></td>
<td>Revision</td>
<td>0.104</td>
</tr>
<tr>
<td></td>
<td>Restart</td>
<td>0.334</td>
</tr>
<tr>
<td>Feedback</td>
<td>Evaluation</td>
<td>0.079</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>0.004**</td>
</tr>
<tr>
<td>Fluency</td>
<td>Spoken tokens per minute</td>
<td>0.006**</td>
</tr>
</tbody>
</table>

*Note.* *The $p$-level is the same as that of its occurrences since we assumed fillers consisted of one word such as “Hmm.” **$p < .01$.*
Figure 1. Project overview.

The figure above shows the doctoral project overview. 3 projects constitute the entire doctoral project. Each project is enclosed by dotted lines shaped differently according to their research coverage and relationships with the other projects. Project 1 covers the entire research area (shown as in the largest dotted rectangle) that consists of research subjects (English language learners and their instructors) and their objectives. Project 2 serves as a basis for Project 3 in that it scrutinizes the NI-NNI vocabulary similarities and differences to be used in the corpus teacher training in the following project (Project 3). A dotted large left arrow (that is inside Project 1's dotted line, leading to Project 3's dotted line) designates Project 2's role in the doctoral project. Project 3 examines whether corpus building methods and their findings in Project 2 will be effective in teacher education in such a way as to facilitate communicative language teaching (CLT).
Figure 2. Use of English language in Japanese high schools.

The figure above shows a summary of MEXT's progress reports on English language education in 2006 and 2007. Teachers stated how much English language they used during their class periods for 3 English language courses on a 4-point scale ranging from "hardly any or no English spoken" to "mostly English spoken". The bars show 2 positive answers, but not the negative responses. Except OC I, where use of English exceeded barely 50% in both years, the English use is far less than 50%. No significant change was observed in any category over the 2-year survey interval.

MEXT = the Ministry of Education, Culture, Sports, Science and Technology; OC = oral communication
Figure 3. Project 1 overview.

The figure above illustrates an overview of Project 1 (to identify enabling factors of CLT). Project 1 covers the entire research area (shown as in the largest dotted rectangle) that consists of subjects (English language learners and their instructors) and their objectives. We recognize that our subjects are language instructors (NNIs) that teach English to learners, i.e., high school students. We assume that they seek certain goals and objectives such as passing entrance exams, or acquiring communicative English language skills. We conducted a survey on NNIs in order to find factors to facilitate CLT feasibility.
The 4 research variables illustrated with ovals above are all latent variables hypothesized from the literature. Arrows show relationship between each variable. Variables from which arrows come are predictor variables. Variables that arrows reach are dependent variables. Thus, $V_1$ is a predictor variables and a dependent variable at the same time since two arrows reach $V_1$ from $V_2$ and $V_3$, and one arrow reaches $V_4$ from $V_1$. Path coefficients are not shown in the diagram above yet. A set of 4 measured variables to each research variable does not imply as many measured variables at this stage as the questionnaire items will represent measured variables after the questionnaire is complete. The number of measured variables may be more or less than 4.
Figure 5. Hiring status of the participants (n = 312).

Most of the teachers hold permanent teaching positions (88.5 %), which is consistent with all high school teachers in this nation (89.7 %).*

Note. *This figure is estimated according to the results of a nationwide survey by the national government in 2012 (MEXT, 2012). The actual percentage is calculated; \{195,942 [3,449 (senior teachers) + 407 (advanced skill teachers) + 195,942 (full-time teachers)] divided by 218,401 (total number of teachers and temporary instructors) \} multiplied by 100.
Figure 6. Participants' length of teaching experience ($n = 312$).

Approximately 65% of teachers have taught for no less than 10 years. If we assume that medians of 5 year ranges, we would get a mean value of 14.3 years, which is younger than the national average of 19.3 years in 2009 (MEXT, 2009).
There does not seem to be a clear pattern regarding the number of schools the teachers have taught at; perhaps this is due to teachers of private or some rural public high schools not changing schools for extended periods for residential reasons.
Figure 8. Types of high schools participants currently teaching at.

76% of the responders teach at either regular high schools, and 15% at vocational high schools, which represent almost equal percentages of such schools on the island (75.2% and 14.8% respectively).
**Figure 9. Good model fit (V₁ → V₄ SEM/LV).**

The model V₁ → V₄ had the best goodness of fit index (GFI) value among the models we considered. V₁ showed a reasonable correlation with measured variables 2 (use of no Japanese), 3 (use of English instructions), 5 (using English to communicate) and 6 (pair work in English) shown as rectangles with their standardized correlation coefficient values below the numbered rectangles. V₁ showed a moderate correlation with measured variables 1 and 2, and no correlation for measured variables 4 (use of textbook CD) and 7 (team-teaching). V₄ showed a reasonable correlation with measured variables 24 (confidence in all English lessons) and 25 (able to adjust to students' L2 skills).
The question asked NNIs' expectations toward their students. 61 responses were classified depending on the answers. The most popular answer of the NNI was to expect their students to be motivated to study English. This reflects the fact that many students are not motivated to study English while the NNIs believes that one of the keys to be successful learners is to be motivated to learn the language. The second most popular answer is to expect student home study. This reflects the fact that NNIs do not think their students study sufficiently at home. One hope that can be examined as for the CLT improvement is that the third most popular classification is NNIs' belief that studying English is not just for the entrance examination.

**Figure 10.** Histogram of classified answers for write-in Question 1.
The question asked NNIs' expectations toward assistant language teachers (ALTs). 78 responses were classified depending on the answers. The most common answer was NNIs' expectation for ALTs to be enthusiastic about teaching English, and the second most common was expecting them to be knowledgeable about teaching method. These facts reveals that NNIs do not feel ALTs are as much beneficial as they expect them to be. NNIs' expectation for ALTs to interact with students may support this analysis. However, 5% of the respondents said they have no problems with their ALTs. It seems that there are discrepancies between the ideal goal of having ALTs as facilitators of CLT and the real situations local to schools and teachers that ALTs are assigned.

Figure 11. Histogram of classified answers for write-in Question 2.
Figure 12. Histogram of classified answers for write-in Question 3.

The question asked NNIs' expectations toward English education. 86 responses were classified into 14 categories depending on the answers. Since the question's scope was relatively broader than the preceding two questions, it required the most number of classification labels. The top response can be generalized as NNIs coveting time and money for their self-English-skills improvement. This agrees to the literature although good model fit did not prove to be found in the specified path models. The second longest bar suggests that NNIs are not quite sure of how they should implement CLT in practice. The NNIs' request for University entrance exams to change that gained the third most popularity is long-disputed issue that must play one of the key roles in promoting CLT. Ranked next is the NNIs' desire to have less diversified students in one classroom. This reflects that there are more students in one classroom that NNIs can handle for teaching English language.
Figure 13. Project 2 overview.

The figure above illustrates an overview of Project 2 (to examine NI-NNI vocabulary differences and similarities). Project 2 seeks to support NNIs in order to achieve CLT by providing evidence collected through building classroom English corpus. English spoken tokens uttered by NIs and NNIs were collected to define what English lexical items are commonly and/or preferably used by NIs and NNIs. Such evidence would justify NNIs using English in their classrooms.
Figure 14. Venn diagram of subsets consisting of NI, NNI and/or CE lexical tokens.

We categorized NI, NNI, and CE lexical tokens into subsets $S_1$ through $S_7$ depending on how the tokens were shared. For example, $S_4$ are tokens shared by NI and NNI, but not with CE. Sets NI and NNI include tokens that characterize how each instructor chooses and conveys teaching material. Set CE has tokens from Teranishi (1950).
Figure 15. 3 NIs' lexical token distribution.

Lexical token distributions of 3 NIs across the 8 ranks of the benchmark corpus. The cumulative percentages of all NIs exceed 90% at rank 2 (the most frequent 2000 lexical tokens) and gradually climb afterwards.
Lexical token distributions of the NNI in our study plus 5 NNIs from other classes across the 8 ranks of the benchmark corpus. In rank 1, 2 NNIs from other classes (NNI₂ and NNI₄) had lower percentages than other NNIs. Our NNI and 3 NNIs from other classes (NNI₁, NNI₃, NNI₅) show similar cumulative percentage patterns. All NNIs are close to or exceed 90% at rank 2, and gradually increase afterwards.

*Figure 16. 6 NNIs' lexical token distribution.*
Figure 17. Distribution of lexical types across $S_1$ and $S_7$.

The relative sizes of lexical types in across $S_1$ and $S_7$ may reflect the same and different roles of the NIs and NNI. $S_4$ and $S_7$ might reflect existence of NI-NNI core vocabulary of teacher speech. Approximately half of the core vocabulary reflects lesson proper and the other half CE.
Figure 18. Percentage of NI, NNI and/or CE lexical tokens.

The figure above shows a Venn diagram of NI, NNI and/or CE lexical token subsets. Each subset displays percentage of lexical types. The total percentage does not amount to 100 since percentage values are rounded at second decimal place.
**Figure 19.** Cumulative percentages of NI and NNI tokens per 1000-type rank of the benchmark wordlist.

NI and NNI cumulative percentages are similar overall. A slight difference is the crossover between the 4,000 and 5,000 type ranks. This may be due to the NNI's role of introducing vocabulary items in class (most new lexical types are dependent on courseware content, and often fall outside the benchmark wordlist). The NIs' role is motivating students to speak with classmates and instructors.
Figure 20. Number of lexical types preferred by either NI or NNI per benchmark wordlist rank.

NI or NNI token frequencies were normalized for each of the benchmark wordlist ranks according as the number of appearance in the video recording. The number of each NNI token was multiplied by the ratio of appearance in the classroom corpus i.e., the value of 9 (NIs' number of classes) divided by 49 (NNI's number of classes) as shown in Table 1. The leftmost 2 columns include 137 essential lexical types that the benchmark wordlist deems equally worthy of instruction regardless of frequency in language (e.g., cardinal numbers, days of the week). The benchmark collectively treats these essential types as rank 1. The NNI uses such types more often than NIs (e.g., when referring to textbook page numbers). Types in the 2-1,001 rank are twice as likely to be preferred by NIs than the NNI. Types in the 1,002-2,001 rank appear at roughly identical frequencies for the NIs and the NNI.
Figure 21. Correlation coefficients of lexical types appearing in $S_4, S_5, S_6, S_7$ vs. the benchmark wordlist.

The correlation between the union sets $S_4 \cup S_7$, $S_5 \cup S_7$, and $S_6 \cup S_7$ vs. the benchmark wordlist is high for the 1,000 most common types.
Figure 22. Normalized token frequencies of NIs and NNI ordered by their respective frequency ranks.

NI and NNI raw frequency values were divided by their maximum values (rank = 1) and plotted on a logarithmic scale in the order of their respective ranks. Data points are connected with lines help visualize tendencies. Both NI and NNI plots steeply drop at around rank = 100. The NNI used more token types than the 3 NIs combined; hence the NNI's plot extends further to the right.
**Figure 23.** Normalized token frequencies of NIs and NNI ordered by NNI frequency rank

This figure is similar to Figure 18 except that NI normalized token frequencies are plotted in the order of NNI ranks where common tokens were found, and otherwise in the order of NI ranks. Data points are connected with lines to help visualize tendencies. The NI's jagged plot shows how frequency counts for the same lexical type vary between NIs and NNI. The same tendency was found when this same graph was plotted in order of NI ranks.
Figure 24. Histogram of significant NI vs. NNI ratio differences, sorted in the order of difference magnitude.

The height of each bar represents the difference of NI and NNI frequency ratios for the same lexical type. NI and NNI frequencies are relative to their respective frequency values at rank = 1. Positive values indicate NI high-key candidate types \((n = 112)\), and negative values indicate NNI candidates \((n = 43)\).
Figure 25. Project 3 overview.

The figure above illustrates an overview of Project 3 (to use classroom corpora in training preservice teachers). Project 3 locates itself relatively closer to the subjects and their objectives than Project 2 (Figure B) because the role of Project 3 is to realize CLT using findings in the preceding project (Project 2), and methods used in building and examining English classroom corpus.
Figure 26. Histogram of disfluency and feedback occurrences in the pretest and the posttest.
Figure 27. Scatter plot of teaching time and spoken tokens of each participant in the pretest and the posttest.
References


9-1


Appendix A: Japanese high school non-native English teacher questionnaire COVER LETTER

平成22年8月11日

北海道公立高等学校長様
北海道中等教育学校長様
北海道私立高等学校長様

北海道大学大学院メディア・コミュニケーション研究院
准教授 河合 剛

北海道大学大学院国際広報メディア・観光学院
博士後期課程 片桐 徳昭
(札幌開成高校教諭)

貴校英語教員へのアンケート調査へのご協力の依頼

残暑の候、貴校ますますご清栄のことお慶び申し上げます。平素は格別のご高配を賜り、厚くお礼申し上げます。

私たちは、北海道大学大学院メディア・コミュニケーション研究院の河合剛と国際広報メディア・観光学院の片桐徳昭と申します。現在、コミュニケーション的な英語授業を促進するために必要な要素を探るため、高校英語教育の現場に関係する生徒、日本人英語教員、外国語指導助手(ALT)の英語に対する意識等を研究しています。本研究は文部科学省の謳う「英語が使える日本人」の育成の一助となることも研究課題の一つとしています。そこでこの度、日本人英語教員を対象としたアンケート調査を実施することとなりました。調査対象を抽出するにあたり北海道のほぼ全ての高等学校(通信制を除く)に調査の依頼をすることとしました。

お忙しいところ、お手数をかけて誠に恐縮ですが、同封のアンケート用紙とマークカードを貴校の英語科主任の先生にお渡しいただき、期日(8月31日)までに返信用封筒で投函していただけるようお取りはかりいただけると幸いに存じます。
回答は無記名のマークシート方式(一部記述式)で行い、協力いただいた先生方の回答を匿名とした上で、他の回答者と合算集計して、北海道の高校で教える日本人英語教員の傾向を調べ、教員研修会や学術会議などで発表します。調査協力者の氏名や所属学校などを記した資料は記載しません。研究成果を発表するとき、個人名は特定されません。データの保管に細心の注意を払い、他に漏らしません。回答した個人名や所属学校が特定される事はありません。

なお、本調査に関するご不明な点や疑問な点などございましたら、遠慮なく、当方(下記連絡先)までお問い合わせください。
それでは、よろしくご高配を賜りますようお願い申し上げます。

質問等連絡先: 下記のメールアドレスにてお問い合わせください。

survey@kawai.com

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(札幌開成高校教諭)
マークカードの氏名・番号欄は記入不要です。

＜第1部・授業の目的等＞

・ 以下の質問に対し、
①とてもそう思う ②まあそう思う ③どちらでもない
④あまりそう思わない ⑤全くそう思わない のうちから最も近いものを一つ選びマークして下さい。
あなたの英語の授業の目的は

No.1 生徒に大学入試問題を解くことができる能力を身につけさせることである。
No.2 生徒に外国人(英語を話す)とコミュニケーションを取ることの出来る能力を身につけさせることである。
No.3 生徒に英語の映画や音楽を日本語を介さずに理解できる能力を身につけさせることである。

＜第2部・授業活動＞

・ あなたの授業においての以下の質問に対し、
①とてもそう思う ②まあそう思う ③どちらでもない
④あまりそう思わない ⑤全くそう思わない のうちから最も近いものを一つ選びマークして下さい。
No.4 英文法を説明したい。
No.5 英単語や英熟語の意味を解説したい。
No.6 主に日本語を話して教えて下さい。
No.7 主に英語で指示したり、解説したりしたい。
No.8 教科書音声CDなどネイティブスピーカーの音声を生徒に聞かせたい。
No.9 教科書等にある英文や英単語・熟語の日本語の意味を生徒に答えさせたい。
No.10 生徒たちに英語で話しかけてコミュニケーションをとりたい。
No.11 英語を用いて生徒同士にコミュニケーションをさせたい。
・以下の問いに対し、最も近いものを一つ選びマークして下さい。
No.12 ALTとのteam teaching (TT)を実施していますか。
①はい ②いいえ ③これから実施してみたい ④できればやりたくない ⑤これからも実施するつもりはない

*No.12で「①はい」と回答した先生のみNo.13, 14を回答して下さい。②〜⑤を回答した方は、No.13, 14はとばして、No.15にお進みください。

No.13 今年度、ALTとのTTの授業はどのくらいの頻度で実施していますか。
①週1回以上 ②2週に1回程度 ③ひと月に1回程度 ④1学期に1回程度 ⑤全く無い

No.14 どの科目においてTTを実施していますか。
① OC I/II ②英語I/II ③Reading ④Writing ⑤その他の科目

＜第3部・受け持ちの生徒に対する期待＞

・ あなたの受け持ちの生徒に関しての以下の質問に対し、
①とてもそう思う ②まあそう思う ③どちらでもない ④あまりそう思わない ⑤全くそう思わない のうちから最も近いものを一つ選びマークして下さい。
No.15 英文法を理解してほしい。
No.16 わからない英単語や英熟語の意味を英和辞書を使って日本語の意味を調べてほしい。
No.17 英語で話しかけられたら、積極的にコミュニケーションを取ってほしい。
No.18 ALTに英語で話しかけられたら、積極的にコミュニケーションを取ってほしい。
No.19 英語を用いて生徒同士でペアワークや、グループワークで積極的にコミュニケーションを取ってほしい。

＜第4部・外国語指導助手(ALT)に対する期待の質問＞

・ ALTに関して(TT実施の有無に関わらず)以下の質問に対し、
①とてもそう思う ②まあそう思う ③どちらでもない ④あまりそう思わない ⑤全くそう思わない のうちから最も近いものを一つ選びマークして下さい。
No.20 英文法を説明してほしい。
No.21 英単語や英熟語の意味を解説してほしい。
No.22 主に日本語を話して教えてほしい。
No.23 主に英語で指示したり、解説したりしてほしい。
No.24 教科書音声CDなどネイティブスピーカーの
音声を生徒に聞かせてほしい。
No.25 教科書等にある英文や英単語・熟語の日本語
の意味を生徒に答えさせてほしい。
No.26 生徒たちに英語で話しかけてコミュニケーションをとってほしい。
No.27 英語を用いて生徒同士にコミュニケーションをさせてほしい。

＜第5部．英語教育一般＞

・ 英語教育に関する以下の質問に対し、
①とてもそう思う ②まあそう思う ③どちらでもない
④あまりそう思わない ⑤全くそう思わないのうちか
ら最も近いものを一つ選びマークして下さい。

No.28 英語教育に対するあなたの現時点での考え
は教員になった時(教師1年目)と比較して変化し
ましたか。

No.29 あなたが考えている英語教育にとって大切
なものを現場で指導している内容は一致していま
すか。

No.30 あなたには英語教師として研修の時間が十
分確保されていると思いますか。

No.31 あなたにとって生徒指導は英語指導より優
先されていると思いますか。

No.32 あなたにとって学校業務(英語指導以外の)は
英語指導より優先されていると思いますか。

No.33 あなたの職場の同僚は主にオーラルを中心
とした授業を行っていると思いますか。

No.34 あなたの職場の同僚は主に文法訳読式の授
業を行っていると思いますか。

No.35 あなた自身には確立された英語指導方法と
いうものがあると思いますか。

No.36 OCI/IIなどのコミュニケーション系の英語の
授業で、あなたの生徒が大学入試用の授業を要求
したとしたら、あなたは彼らの要求に従いますか。

No.37 あなたの現在受け持つ生徒たちに英語学
習動機はあると思いますか。

No.38 あなたが現在1教室で教える生徒たちの英
語の能力は均一だと思いますか。

No.39 あなたは今、明日の授業から生徒の理解に極
力合わせて、全て英語で授業を行うことを求めら
れた時、自分では実行したいと思いますか。

No.40 あなたが英語のみで授業を行った場合、生
徒はあなたの英語を理解することができると思い
ますか。

No.41 あなたは今、明日の授業から生徒の理解に極力
合わせて、全て英語で授業を行うことを求められた
時、自分では実行したいと思いますか。

No.42 あなたは英語の研修会等にどのくらいの頻度
で参加していますか。
①1年に数回程度 ②1年に1回程度 ③1年に1回未満
④過去5年間に1度も参加なし ⑤過去5年以上1度も
参加無し

＜第6部．経歴等＞

No.43 最終学歴をお答えください。
①大学院修了(博士) ②大学院修了(修士)
③大学卒 ④短大卒 ⑤その他

No.44 職位をお答えください。
①教諭 ②期限付教諭 ③専任講師 ④時間講師 ⑤その他

No.45 教職経験年数をお答えください。
①1年未満 ②1年以上5年未満 ③5年以上10
年未満 ④10年以上15年未満 ⑤15年以上

No.46 経験学校数をお答えください。
①1校 ②2校 ③3校 ④4校 ⑤5校またはそ
れ以上

No.47 現在の勤務校(または、主に教えている学科)で
最も近いものをお答えください。
①普通科 ②英語科 ③国際・・科
④職業科(商業、農業、工業、水産等)
⑤その他の学科

＜第7部．記述式回答＞

・以下の問いに回答することがあれば、マークカード
の背面の該当記号のところにご記入ください。

記述 1. 生徒に何か期待や要求することがあれば、ご
記入ください。

記述 2. ALTに何か期待や要求することがあれば、ご
記入ください。

記述 3. 英語教育全般に対する意見や要望が何かあ
れば、ご記入ください。
＜同意・非同意＞
下記のうち、いずれか1つを選び、マークカードの50番にマークして下さい。

・私は、私のアンケート回答が、教育や研究の目的に用いられることに同意します。
  → マークカードの50番の①にマークして下さい。

・私は、私のアンケート回答が、教育や研究の目的に用いられることに同意しません。
  → マークカードの50番の⑤にマークして下さい。

ご協力ありがとうございました。

回答用マークカードのみを返信用封筒に入れて、8/31までに投函していただけと助かります。
Appendix B-2: Translated survey questionnaire

Choose the response that best describes your agreement or disagreement to the statement.

Section 1: Aims of your teaching

1. In your English lessons, you seek to help your students pass entrance exams.
2. In your English lessons, you seek to give your students communicative language skills.
3. In your English lessons, you seek to give your students the capability to enjoy English songs and movies.

Section 2: Aims of your lessons

4. I want to explain English grammar to my students.
5. I want to explain English words, phrases and idioms to my students.
6. I want to speak mainly in Japanese to teach to my students.
7. I want to speak in English when instructing and explaining to my students.
8. I want to demonstrate native English speakers’ sounds such as by playing textbook CDs to my students.
9. When I want to verify that my students understand, I prefer to have them answer in Japanese rather than in English.
10. I want to communicate with students by speaking English to them during my lessons.
11. I want my students to communicate with one another in English.
12. Do you co-teach with assistant language teachers (ALTs)?
   ① Always. ② Most of the time. ③ Half and half. ④ Rarely. ⑤ Never.
   *If you chose ⑤ Never, skip questions 13 and 14, and continue at question 15.
13. How often do you co-teach with ALTs?
   ① More than once a week. ② About once every two weeks. ③ About once a month.
   ④ About once per semester. ⑤ Never.
14. In which subjects do you co-teach?
   ① Oral Communication I/II. ② English I/II. ③ Reading. ④ Writing. ⑤ Others.

Section 3: Expectations toward your students

15. I want my students to understand English grammar during my English lessons.
16. I want my students to use the target language (i.e., English) during my English lessons.
17. I want my students to be willing to communicate with me when spoken to in English.
18. I want my students to be willing to communicate with ALTs when spoken to by them.
19. I want my students to be willing to work in pairs or in groups using English.

**Section 4: Expectations toward ALT (Assistant Language Teachers)**

**Answer questions whether you currently co-teach with ALTs or not.**

20. I want my ALTs to English grammar to our students.

21. I want my ALTs to explain English words, phrases and idioms to our students.

22. I want my ALTs to teach in Japanese to our students during our English lessons.

23. I want my ALTs to use English to instruct and explain to our students during our English lessons.

24. I want my ALTs to use authentic English sounds during our English lessons (e.g., play a textbook CD).

25. I want my ALTs to ask our students to answer Japanese meanings of English sentences, phrases and words in the textbooks.

26. I want my ALT to speak English to our students to communicate.

27. I want my ALTs to have our students engage in communication activities through English.

**Section 5: English Education in Japan**

28. Have your thoughts on English education changed compared with those when you first began teaching English (in your first teaching year).

29. Does your teaching English correspond to what you think is important in English education?

30. Do you think you are guaranteed enough time for your professional development?

31. Do you think disciplining your students has higher priority than your teaching English?

32. Do you think school chores has higher priority than your teaching English?

33. Do you think your colleagues in English department conduct lessons based mainly on the oral method?

34. Do you think your colleagues in English department conduct lessons based mainly on the grammar translation method?

35. Do you think you have established your own method of teaching English?

36. In your OCI or OCII lessons, if your students asked you to do lessons to prepare them for passing the entrance exams to universities, would you accept their request?

37. Do you think your students have motivation to study English?

38. Do you think your students’ English language skills are evenly distributed?

39. Do you think you could, if asked, conduct English lessons according to your students’ level of understanding?

40. Do you think your students would be able to understand you if you conduct English lessons wholly through English?

41. Would you like to do your English lessons though English depending on your students’ level of understanding, if you were asked to do so?

42. How often do you participate in seminars for your professional development?

   ① A few times a year.  ② About once a year.  ③ Less than once a year.  ④ Never for the past 5 years.  ⑤ Never in over 5 years.
Section 6: Background information

Choose the response that best describes your agreement or disagreement to the statement.

43. Your academic degree is
   ① Ph.D.  ② M.A.  ③ B.A.  ④ A junior college diploma.  ⑤ Others

44. Your current status in school is
   ① a permanent teacher.  ② a one-year regular teacher.  ③ a regular teacher.  ④ a part-time teacher.  ⑤ others.

45. Length of your teaching experience up to this year is
   ① less than a year.  ② 1 to 5 years.  ③ 5 to 10 years.  ④ 10 to 15 years.  ⑤ 15 years or more.

46. The number of schools you have taught at so far is
   ① 1.  ② 2.  ③ 3.  ④ 4.  ⑤ 5 or more.

47. In which course do you teach mainly?
   ① In a regular course.  ② In an English course.  ③ In an international course.  ④ In a vocational course.  ⑤ In a course not listed in the alternatives.

Section 7: Written answer questions

1. What do you expect of your students? Write your thoughts on the reverse side of the answer sheet.

2. What do you expect of your ALTs? Write your thoughts on the reverse side of the answer sheet.

3. Do you have any other desires or suggestions? Write your thoughts on the reverse side of the answer sheet.
Appendix C: Thank you letter for the survey to high schools

平成22年9月21日

北海道

学校長 様

北海道大学大学院メディア・コミュニケーション研究院
准教授 河合 剛
北海道大学大学院国際広報メディア・観光学院
博士後期課程 片桐 徳昭
札幌開成高校教諭

貴校「英語教員へのアンケート調査」の終了について（お礼）

中秋の候、貴校におかれましてはますますご清栄のことお慶び申し上げます。
平素は格別のご高配を賜り、厚くお礼申し上げます。
さて、先月、標記「英語教員へのアンケート調査」の依頼につきまして夏休み明けのお忙しい中、ご協力をいただき誠にありがとうございました。
お陰をもちまして、全道148校337名の英語の先生方より回答を得て、このように比較的規模な調査としましては良好な回収率（47.4%）を得ることができました。
貴校の英語科主任先生をはじめ、協力いただきました英語の先生に同封の礼状をお渡しいただき、私どもの感謝の意をお伝えいただけると幸いです。
目下、回答いただきました結果の集計と分析を行い、教員研修会や学術会議などで発表を計画しております。
今後とも私どもの研究にご指導ご鞭撻を賜りますようお願い申し上げ、甚だ略式ながら書中にてお礼に代えさせていただきます。
平成22年9月21日

英語科主任 様

英語科教員 様

北海道大学大学院メディア・コミュニケーション研究院
准教授 河合 剛
北海道大学大学院国際広報メディア・観光学院
博士後期課程 片桐 徳昭
（札幌開成高校教諭）

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お陰をもちまして、全道148校337名の英語の先生方より回答を得て、このように比較的大規模な調査としましては良好な回収率（47.4%）を得ることができました。
目下、回答いただきました結果の集計と分析を行い、教員研修会や学術会議などで発表を計画しております。

今後とも私どもの研究にご指導ご鞭撻を賜りますようお願い申し上げ、甚だ略式ながら書中にてお礼に代えさせていただきます。
### Appendix D-1: JT written answers for write-in question 1

#### What is your expectations and requests to your students?

<table>
<thead>
<tr>
<th>Code*</th>
<th>School ID</th>
<th>Written answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>一生学び続けてほしい。</td>
</tr>
<tr>
<td>1</td>
<td>14</td>
<td>異文化への興味の助長。苦手意識の克服。</td>
</tr>
<tr>
<td>1</td>
<td>26</td>
<td>自立的学習。</td>
</tr>
<tr>
<td>1</td>
<td>35</td>
<td>勉強を通じて自己を高めようという気持ち。</td>
</tr>
<tr>
<td>1</td>
<td>44</td>
<td>自ら進んで学習する態度、好奇心。</td>
</tr>
<tr>
<td>1</td>
<td>48</td>
<td>知ること自体を楽しんで欲しい。</td>
</tr>
<tr>
<td>1</td>
<td>61</td>
<td>「できない」と決めつけないでチャレンジしてほしい。</td>
</tr>
<tr>
<td>1</td>
<td>93</td>
<td>自立した学習者になれるように頑張って下さい。</td>
</tr>
<tr>
<td>1</td>
<td>130</td>
<td>こういう時代だからこそもっと勉強してほしい。</td>
</tr>
<tr>
<td>1</td>
<td>130</td>
<td>今日の英語の必要性は分かっているのに取り組もうとする意欲が欠けてている生徒が多いです。もっとしっかり中学校のときから学習していれば、とても面白い教科だと思うのですが。</td>
</tr>
<tr>
<td>1</td>
<td>147</td>
<td>学校に来る目的・学ぶ意識をしっかり持ってもらいたい。学ぶ意識が低い生徒がいるのでそう思う。</td>
</tr>
<tr>
<td>1</td>
<td>157</td>
<td>自主的・自発的な英語学習。</td>
</tr>
<tr>
<td>1</td>
<td>165</td>
<td>向上心を持つこと。</td>
</tr>
<tr>
<td>1</td>
<td>165</td>
<td>理解できる、できないではなく、学ぼうとする気持ち。</td>
</tr>
<tr>
<td>1</td>
<td>178</td>
<td>新しいことを学ぶことに対しての意欲を持つ。英語を通しての国際理解、平和への取り組みを深める。</td>
</tr>
<tr>
<td>1</td>
<td>192</td>
<td>怠けない。努力する。継続する。</td>
</tr>
<tr>
<td>1</td>
<td>196</td>
<td>英語の力が分かってつくと思わずに粘り強く学習して欲しい。</td>
</tr>
<tr>
<td>1</td>
<td>232</td>
<td>英語を含めた学習に対する時間の投資。</td>
</tr>
<tr>
<td>1</td>
<td>238</td>
<td>素直に貪欲にactivityに挑戦する気持ちを持ってほしい。ポジティブな気持ちで「まぁ面倒だけど、やってみよう」と思ってもらえれば、あとはうまく授業に興味を持ってもらえると思います。そして、教師が生徒にそのような気持ちを持ってもらえるように努力する。</td>
</tr>
<tr>
<td>1</td>
<td>251</td>
<td>日常生活の中で触れる外国語について、興味関心・疑問を持つ態度。</td>
</tr>
<tr>
<td>1</td>
<td>254</td>
<td>英語や、こちらの言うことに興味・関心を抱かせるのは教師の仕事であるが、「将来英語は必要ないから」と、10歳代の今、決めつけで、人生の幅を狭めないで欲しい。</td>
</tr>
<tr>
<td>1</td>
<td>254</td>
<td>文法や単語の持つニュアンスを知ってほしい。</td>
</tr>
</tbody>
</table>
指示されたことに丁寧に取り組もうとする姿勢、実際に取り組む(取り組み続ける)ことのできる能力を身につけてほしい。「好きなこと」「楽なこと」をやるだけではだめだということを実感し、行動に移してほしい。

具体的な目標を立て、それに向かって自主的に学習を進めてほしい。苦手意識を少なくし、積極的に学習に取り組んでほしい。

中学校でアルファベットを書けるようにすること。基礎的な単語を覚えること。遅刻や忘れ物をしないこと。

ぜひ単語を暗記し、長期記憶できる訓練をしてから入学して欲しい。

具体的な目標を立て、それに向かって自主的に学習を進めてほしい。

覚えなければならないもの(英単語、文法)は覚える。

中学校の段階である程度のレベル(基本)くらいはわかるようになってほしい。

積極的に発言する。

積極的に英語を使うこと。

発言力、表現力の大切さを意識してほしい。

英語を好きになってほしい。English Worldを楽しんで欲しい。

「受験のため」がメインの動機でなく、「使えるようになる」ことを考えて学習して欲しい。英語+αのスキルは今後求められる技術である。

学校や予備校(塾)から与えられる課題だけではなく、自ら学ぶ・研究していくイージーで本来の力をつけて欲しい。外国人と対応できる言葉を使ったコミュニケーション能力を身につけた動機で学習を進めたい。

「受験のため」以外の勉強への動機を与えたい。

授業外でも英語に触れようとする姿勢を持たせたい。

語学というよりはツールの方の意識を持って英語を使いこなしてもらいたい。英語を話せるだけで出会いや思想がグンと広がることを教育したい。

分からない単語や新出単語は調べて来てほしい。

単語やイディオムの意味を自分で辞書を引いて調べること。

辞書で調べる習慣をつけてほしい。

1年生のうちに辞書が引けるようになるといいとは思います。
6 43  間違うことを恐れずに、英語を用いて欲しい。暗記以前に頭を使っ
て考えるという作業をして欲しい。

7 96  家庭学習をしてもらいたい。

7 126  自学自習できるよう、常に努力すること。

7 141  家庭学習時間の確保。

7 151  英語だけではなく、主要教科の家庭学習を習慣化して欲しい。

7 223  家庭学習の習慣。

7 230  予習復習等学習への積極的な取り組み。

7 237  自学自習をする習慣を身に付けて欲しい。

7 278  自己的に家庭学習が出来るようになってほしい。辞書をもっと利用
してほしい。

7 307  もっと勉強時間を増やしてほしい（家庭学習）。

8 160  特になし。期待を与える、引き出すのが教師の仕事。

生徒へ期待することはありません。学習の成果は、それを受けるも
のの動機によるところが大きいと思いますが、その動機付けは保護
者、学校などの大人たちによってなされる部分が少なからず多いと
思います。学習の成果が上がらないことは生徒の責任とは言いがた
いものがあります。また全ての生徒が言語学習の動機付けを行うと
いう態度は学ぶ立場にあるものの人格を軽視していることにもなり
かねないと考えています。（高校は義務ではないということから）

生徒に期待するものは思い浮かびませんが、私たち英語教師は生徒
が漠然と期待しているものを越える授業と成果、身につく力を提供
できるように英語授業力を延ばしていく必要があると思います。

本校生徒は英語力に関して学力差が大きく、どちらというと能力的
に低い子が多いのが現状です。そのような中、高いレベルの英語を
身に付けてもらうより、英語の授業を楽しく取り組まれること
を望んでいます。もちろん英語が好きで得意な生徒にもいます。英
検２級を取得した生徒もいます。従ってモチベーションを下げな
よう、個別指導を行い、検定の取得やスピーチコンテストに出場さ
せるようにしています。

英語検定でいうと、最低でも３級を合格しなければ高校を卒業でき
ないというシステムをつくらない限り、つまり、学校教育で基礎、
基本の習得を生徒に保証しない限り、何も期待、要求は出来ないと
感じている。

Note. * The code numbers represent the following classes: 1 = Be motivated to study!
2 = Study at home. 3 = Study English not just for entrance exams but for
communication as well. 4 = Master basic knowledge. 5 = Use dictionaries. 6 = Be
communicative! 7 = English teachers should not have expectations from students. 8
= Not classified as either of the above. 9 = Do not be afraid of mistakes.

10-13
## Appendix D-2: JT written answers for write-in question 2

### What is your expectations and requests to ALTs?

<table>
<thead>
<tr>
<th>Code*</th>
<th>School ID</th>
<th>Written answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14</td>
<td>積極的な生徒とのコミュニケーション。</td>
</tr>
<tr>
<td>1</td>
<td>15</td>
<td>ALT の資質として、誰ともコミュニケーションを取りたがらない場合があった。少なくとも生徒と関わることが苦ではない ALT を希望する。</td>
</tr>
<tr>
<td>1</td>
<td>24</td>
<td>生徒のレベルに合った英語を使って、JTE には出来ないことを生徒に教えて欲しい。社交的な人柄。</td>
</tr>
<tr>
<td>1</td>
<td>44</td>
<td>積極的に生徒たちに英語で話しかけたり、説明をしてほしい。</td>
</tr>
<tr>
<td>1</td>
<td>93</td>
<td>生徒に英語を学ぶ楽しさを教えて欲しい。生徒に合わせた接し方を期待したい。生徒が興味を持つような教材・ゲームなどを行ってほしい。生徒にとっては、英語を使わなければならない、コミュニケーションできない数少ない人間なので、生徒と英語を使い、コミュニケーションをとってほしい。</td>
</tr>
<tr>
<td>1</td>
<td>147</td>
<td>教室以外の場（休み時間や放課後の部活など）で、生徒たちとコミュニケーションをとってほしい。</td>
</tr>
<tr>
<td>1</td>
<td>196</td>
<td>生徒たちに英語をどんどん聞く、話せる環境を与えて欲しい。</td>
</tr>
<tr>
<td>1</td>
<td>238</td>
<td>生徒の理解度に合わせた発問。理解に時間がかかる生徒への粘り強い指導。</td>
</tr>
<tr>
<td>1</td>
<td>251</td>
<td>もっと日本語を知って欲しい。</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>多少の日本語は勉強して来てほしい。</td>
</tr>
<tr>
<td>2</td>
<td>125</td>
<td>日本語を学ぼうとする意欲。</td>
</tr>
<tr>
<td>2</td>
<td>165</td>
<td>日本語の習得。</td>
</tr>
<tr>
<td>2</td>
<td>192</td>
<td>打ち合わせは日本語で行うこと。</td>
</tr>
<tr>
<td>2</td>
<td>221</td>
<td>日本の文化や社会に関しては、社会に興味をもつ。</td>
</tr>
<tr>
<td>2</td>
<td>232</td>
<td>日本の文化や社会に関しては、社会に興味をもつ。</td>
</tr>
<tr>
<td>2</td>
<td>243</td>
<td>日本語を学ぼうとする姿勢。</td>
</tr>
<tr>
<td>3</td>
<td>43</td>
<td>日本語をもっと少し理解して欲しい。</td>
</tr>
<tr>
<td>3</td>
<td>48</td>
<td>日本の文化や社会に関心を持ってほしい。</td>
</tr>
<tr>
<td>3</td>
<td>165</td>
<td>日本文化に対する理解。</td>
</tr>
<tr>
<td>3</td>
<td>307</td>
<td>Do as the romans do.</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>大学等で言語学を専攻した ALT に来てほしい。ALT の採用規準が知りたい。</td>
</tr>
</tbody>
</table>

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10-14
きちんと英語 or 語学指導の学位を持ったスタッフを導入すべき。文化交流のためといった甘い考えで日本に来られ、私たちと変わらない給料をもらっている腰かけのような人たちをなんとかしないと。

生徒の学力レベルに合わせた適切な指導が出来るよう、しっかり英語教授法等を勉強してあることが望ましい。

教授法がある程度身についている人材であれば、臨機応変に進めてもらえるのではないかと思います。

英語教授法のマスター。

英語が苦手な生徒でも楽しむことができる activities をたくさん知っている人を望む。

英語教育のメソッドを、もっと共有できる関係を築けるようにしたい。

もっと理論を勉強してほしい。ALT 同士で授業実践報告会や学習会をするなどして互いにブラッシュアップしてほしい。

怠けない。努力する。郷に入れば郷に従え。

もっと働いて欲しい。

授業全体をオーガナイズする。

楽しい授業を造って欲しい。

ALT との TT は、打ち合せ等、めんどくさいので、1/2 時間毎に日本人と分担する形で行いたい。ALT に評価も責任も任せる方が、彼らが自由に生徒とコミュニケーションが取れ、お互いのために良いのでは。

言語活動の工夫。

現在は、JT がレッスンプランを全て考え、プリント等も作成している（局にメールをする）が、せっかくネイティブと TT を実施しているのだから、プラン等は ALT が考え、JT がヘルプに回った方が良いと思う。JT では考えもつかないような教授法を学ぶ良い機会になればと思う。

授業に対して、ALT からも提案が欲しい。

ALT は少なくとも第 2 言語教育（学習）のプロでなければなりません。授業案や指導方法は含むに教壇に立ち、ゲームを中心とした授業を展開しているが、JT が教科書に沿って一緒に考えていく態度を持ってもらいたいものです。

日本人教師からの授業案を待っているだけでなく、自分から、こういう授業をしたい、という提案があって良いと思う。

英語は楽しい実技教科だと示す姿勢。

assistant ではあっても teacher であるという自覚をもって欲しい。自分の説明・発音などが、生徒にどう理解されているのかということを常に意識して欲しい。

英語の Native というだけでは、授業は出来ないので、教える立場の自覚と、JTE との T-T に対する協力的な姿勢を期待します。
教えること、生徒に関わろうとすることに積極的な態度を持ってほしい。「教える」ことに興味がないという ALT とは TT を持たない。

日本人の英語の先生も ALT も熱心な先生の方が少ないと感じています。（20 年間の経験で熱心な日本人、ALT は 5 人ぐらいしか同僚にはいませんでした。どの教科にも言えることですが）

ALT の人柄や取り組み方に差があると思います。工夫や情熱を持って能力の低い生徒にも接してくれる ALT は人気があり、生徒の学習意欲も高まるのを感じています。

英語学習に対する熱意を持つこと。労を厭わない姿勢。

語学教員としての自覚。前向き、積極的な姿勢。多芸と幅広い生徒理解力。

仕事や人に対して、誠実・真面目であって欲しい。

教育に関して意識の高い ALT を採用して欲しい。

日本人高校生への強い関心と関わることを楽しむハートを持ってほしい。

全ての学校に最低 1 名は（ALT を）常駐させること。

専任で勤務、もしくは定期的に来校してくれる人が必要。

授業の状況にあわせて柔軟に対応してほしい。

英語そのものを教えるよりも、文化等のコンテンツを英語で伝える役目を努めて欲しい。そして JTE も、そのような ALT の力を発揮できる様 Planning をしっかりと行う。

自国の文化を伝えるスモールトークのネタを多く持ってほしい。

授業内の言語活動等の「英語面」については満足していますが、それ以外の文化的な面について生徒と理解を深めてほしい。こちらも TT のクラスでは ALT と連携してうまく扱っていきたいと思う。

ALT は英語教育（言語教育）の専門家とは限らないので特に要求はありません。特に ALT との TT については、末だにどのようにしてよいのか基本的プランが立たない。試行錯誤中。
生徒の扱いにも慣れたよい ALT です。

非常によくやっている。

ALT に対してではないが、現行の ALT のシステムは不要。

しっかりした方法で選考する（可能な限り教員免許取得者とする）。「プログラムのあり方を再考する（労働・給与などの条件）」。現在の日本の経済状況の観点からも、派遣数を再考すべきである。中間期研修をもっと意味のあるものとする。

どの ALT も一生懸命で協力的である。システムのことで意見を述べれば、ALT のシステムをどの学校にも常駐する体制をとるか、英語科教員を１年間海外に派遣するシステムを取るかが良い。中途半端は効果が少ない。

日本語は使わないでほしいが、外国語学習者としてのモデルになるのでたまに生徒の前で日本語を話してもらったと思います。でも授業では分からないフリをしてほしい。休み時間等にも生徒と交流してほしい。

日本語を高校や大学等で学習した経験がある人に来てほしい。

自分の言語をもっと深く追求してから ALT として来て欲しい。少なくとも外国語を学んだ体験は欲しい。

教員の研修のための交流時間。

授業だけではなく、日本の教育を理解した上で、部活動の指導、学校行事の参加をして欲しい。

今のままで良いが以前のように ALT がやりたいことをやってもらえるのも、あっても良いと思う。

All English の授業は非効率的です。

Note. * The code numbers represent the following classes: 1 = Interact with students. 2 = Learn Japanese. 3 = Know about Japan. 4 = Should know teaching method. 5 = Make more effort. 6 = Plan lessons. 7 = Be enthusiastic about teaching English. 8 = Should be based in one school. 9 = Be more flexible. 10 = Serve as cultural informants. 11 = Have no problem with ALTs. 12 = Unable to be classified.
Appendix D-3: JT written answers for write-in question 3

What is your expectations and requests to English education?

<table>
<thead>
<tr>
<th>Code*</th>
<th>School ID</th>
<th>Written answer</th>
</tr>
</thead>
</table>
| 1     | 2         | クラスサイズを小さくすることが先決だと思う。
「英語教育」と一言で言っても生徒のニーズ、社会全体から要求されるもの、地域や学校の特色によって必ずしも1つにはなって来ないのだろうと思う。文法や長文読解をしっかりと勉強している生徒がいつの間にか英語を使ってコミュニケーションできるようになっていたりと、自分で「勉強したい」という気持ちを持つことが何より大切だと思う。また、英語に関するInputをあらゆる方法で与えていく必要がある。出来るだけ多くの生徒に学習の機会を与えるために、「一教科としての英語」ではなく「語学学習の場」としての英語の授業の観点からクラスサイズや授業時数を再考してもらいたい。
| 1     | 15        | 英会話は5人程度の少人数制でなければ効果的ではないと思う。
「英語教育」と一言で言っても生徒のニーズ、社会全体から要求されるもの、地域や学校の特色によって必ずしも1つにはなって来ないのだろうと思う。文法や長文読解をしっかりと勉強している生徒がいつの間にか英語を使ってコミュニケーションできるようになっていたりと、自分で「勉強したい」という気持ちを持つことが何より大切だと思う。また、英語に関するInputをあらゆる方法で与えていく必要がある。出来るだけ多くの生徒に学習の機会を与えるために、「一教科としての英語」ではなく「語学学習の場」としての英語の授業の観点からクラスサイズや授業時数を再考してもらいたい。
| 1     | 36        | 小人数での授業。学習指導要領の目標であるコミュニケーション能力が大学受験のための英語力を考えた時に多少のずれがあるように思う。その中でうまく埋められると良いのではないか。
| 1     | 85        | 20名程度の生徒数での授業。実技教科にするのなら徹底してそうすべき。大学受験の英語の試験は、パワートーキー会場や病院を模したものをネイティブを配置し15〜30分受検者をそこに放り込み、その中でのやりとりや振る舞いで評価、など。
| 1     | 85        | 20名程度の生徒数での授業。実技教科にするのなら徹底してそうすべき。大学受験の英語の試験は、パワートーキー会場や病院を模したものをネイティブを配置し15〜30分受検者をそこに放り込み、その中でのやりとりや振る舞いで評価、など。
| 1     | 242       | 20名程度の生徒数での授業。実技教科にするのなら徹底してそうすべき。大学受験の英語の試験は、パワートーキー会場や病院を模したものをネイティブを配置し15〜30分受検者をそこに放り込み、その中でのやりとりや振る舞いで評価、など。
| 2     | 3         | 大学の英語教育も改善すべきことが多々ある。高校でいろいろ工夫してやっている流れを大学も引き継いでいく必要がある。「英語を話せる大学生」を増やす日本人による大学の授業の実践をあまり耳にしない。
| 2     | 96        | 大学受験の英語をやめ、各種英語検定を採用すると、英語を話せる生徒が増ええると思う。
| 2     | 126       | 大学入試の改革をする。
| 2     | 176       | 受験のためという点からそろそろ脱却しても良い頃だと思う。同じやりかたを何年続けても同じ。楽天のように強い力で導入する位でなければ変わらないし、その気のない教員ならやらない方がよいのでは？
| 2     | 192       | 大学入試が変わらなければ、高校英語教育は大きく変わらない。コミュニケーション的な英語能力や授業展開への要望はここ20年前から変わっていない。様々な研究を現場に生かし、本来の成果へとつなげるべきだと思う。
大学入試がもっと変わること。変わりつつあると思うが、不十分。進学校の教員が苦しうらう。

大学入試がある限り、コミュニケーション重視は難しい。

大学入試で必要とされる能力、技術と今の英語教育の向かっている方向が一致させられず苦しい。大学入試のしばりは大きい。生徒にとっては一生に一度（であってほしい）の受験。失敗させられないという重いが強い。

高等学校における英語教育の目的と、大学入試で問われる英語の試験を統一して欲しい。でないと現場は混乱すると思います。

とかく知識・技能の伝達・習得に焦点が当てられがちではあるが何か生徒自身の知の構築といった形での、（例えば自由英作文をもっととり入れた）授業が、大学入試にも直接し、生徒の英語学習の動機が大学合格という動機とぶれないようになっていて欲しいと思う。

高校現場でやっと欲しいと上からおりてくる事と、大学入試との聞きがあり、現場の教員は、「やりたいこと」「やるべき事」「入試のためにやらなければならないこと」があるため、どこを目指せば良いのか迷いがある。

中学校1年生の最初の内容（be動詞の使い方や、3単現のsの使い方や、代名詞など）が定義されずにいる高校生が非常に多くているという現実と、英語を使って、コミュニケーションをする以前に、日本語でのコミュニケーションと自己の考え方を相手に伝えるということが出来ていない生徒が非常に多くいるということを、よく考える必要があると思います。

生徒の実態や学校の実情によりすべて英語で教えることは無理な学校があります。コミュニケーションも大切ですが、外国語を学ぶためには文法を学習することも大切です。

職業高校は入学してくる生徒の学力差がありすぎ指導が大変である。私のいる学校では英語で授業をするとしたら色々な点で問題が多すぎる。

all Englishでの授業を学習指導要領で定めるのならば、本校のように日本語でさえも授業理解の困難な生徒を抱える学校を研究指定校にしなければ、意味がありません。日本語による学び直しが必要な生徒たちは確かに存在しています。彼らにとっては、英語の力がついたと実感する以上に「わかりた」と達成感を得ることの方が、教育的に価値のあることと感じています。

EFLの環境下において、受け皿的な存在にある学校での英語教育は、かなり厳しい。文科省には北海道地方校のような学校や、生徒のイメージなど皆無だと思う。厳しい環境にあり、先が見えない教育現場だが、腐らず前進して行きたい。
ABCもきちんと書けず、schoolやstudyなどの意味も覚えていない、覚えられない生徒もいるクラスで、英語のみで授業を行うのは、難しいと思います。高校へ入学して来た段階で、英語能力に差がありすぎて、授業の進め方、目標のたて方に苦慮しています。 (小学校から大学受験を目ざす人までを一緒に教える状態です）地方の高校は受検した生徒のほぼ全てが入学するため、発達障害（疑いを含めて）の生徒も少なくありません。様々な学校があるということを考慮して、「原則英語で授業を」としているのか疑問です。

田舎の学校で英語の学力の差が激しく、大学進学を考えている者からアルファベットが書けない者もいる中、英語教員が一人しかおらず、習熟度別授業が出来なかったり、講習、補習が不十分になったりしている。英語の教員数を増やして欲しい。

現在当校では、クラスの英語能力に聞きがあり、また特別支援を必要とする生徒もいることから英語で授業を行っていないのが現状です。高3になってからもbe動詞など基本を身に付けていない生徒が多く、英語への興味も薄いことから、新学習指導要領での英語での授業を求めついて大変不安、困難を感じています。コミュニケーションを意識した授業を行うことは大切だと思います。しかし「すべての日本人が英語でコミュニケーションできる」ようにする必要はないと思います。高い能力や意欲を持った人間にはそれに見合ったレベルのものを与えてやるべきです。小学校での英語教育など愚の骨頂だと思います。

全て英語で授業を行うのは特に進学校ではかなり無理がある。

英語で授業することには反対です。英語が理解できなくても日本では生活に困らない。理解できれば便利かもしれない。でもそういう人は国民のほんの一百、高等学校では全員が英語を学ぶ（履修する）必要は全くないと思う。

日本が英語で授業をするのはばかげている。現状の大学入試から考えると意味がない。英語力は総じて後退するものと思われる。

全部英語でやろうと思えば出来るかもしれないが、生徒の理解を助けるために視聴覚的教材なども用いる必要があり、担任と分掌に追われている日常の中では現実的とは言えない。

日常の雑務に追われ、英語のスキルを磨く時間がとれない。英語教師の英語力を高める取り組みをして行きたいが、田舎で機会がない、等の理由にして、何もできていない。研修が札幌だけでなく、各地で開催してほしいし、(身近な地域の)英語教師どうしの交流の場があればいいと思う。

外国語担当教員の資質の向上を図るために、研修時間の確保をしてほしい。他の教科とも性質が異なり、常にその言語に触れていることが望ましいと考えるため、短期、あるいは長期に研修を行いたい。

研修機会の一層の充実が望まれます。

研修を行いたい者への積極的な時間的、財政的援助(行政からの)。
もっと多くの日本人英語教師が安価で留学できる体制を整えてほしい。大学受験の英語をやめ、各種英語検定を採用すると、英語を話せる生徒が増えると思う。

教師のコミュニケーション能力を向上させる充実した研修を増やすべきだ。

採用5年以内に海外での研修を受けられるようにして欲しい。

英語教育関係の講座には進学校向けが多いので、底辺校向けの講座も行って欲しい。

英語で英語を教えるのには、ものすごい準備、研鑽が必要。それができることのない教員は、それほど多くないが、それが目指すべき理想のはよくわかる。

実践的研修の充実。

英語教育で話せない日本人が出来上がるのであれば、英語の授業は必要ない。「話せる日本人」を育成するなら英語の授業を増やすべきだ。英語教師が英語教育のみに集中できるように他の業務を減らす必要がある。

日常の雑務に追われ、英語のスキルを磨く時間がとれない。英語教師の英語力を高める取り組みをして行きたいが、田舎で機会がない。等の理由にして、何もできていない。研修が札幌だけでなく、各地で開催してほしいし、(身近な地域の)英語教師同士の交流の場があればいいと思う。

英語教育に対する期待の高さからのことと思うが、英語を10年以上学んでも話せるようにならないと批判する人はいても、数学を10年以上学んでも、ような言い方をする人は、他の教科を含めてまず聞かない。

日本人は中高6年間やって英語を話せないという意見がありますが、小中高12年間数学と体育をやっていますがみんな数学と体育が出来るでしょうか?と言い返す人が表れて欲しいと思っています。

日本人の英語の先生(教諭)を増やして欲しい。ネイティブスピーカーと同じくらいの会話能力はあると思うので。

金も人も時間も割かずに、ただ授業をall Englishでやれだのと言っても生徒が英語ができるようになくなる訳がない。文科省の思い込みに是不会。やれと言われればいくらでもやるが、結果途中の頭の中に進学校は存在しても、地方の困難校は存在していないんだろー。現場の努力や熟意に依存するシステムなんて、システムとして成立していない。

コミュニケーション能力向上の研修を積みたいが時間がない。英語教員定数を増やし、ゆとりを与えるべきだと思う。

田舎の学校で英語の学力の差が激しく、大学進学を考えている者からアルファベットが書けない者もいる中、英語教員が一人しかおらず、習熟度別授業が出来なかったり、講習、補習が不十分になったりしている。英語の教員数を増やして欲しい。
英語教育で話せない日本人が出来上がるのであれば、英語の授業は必要ない。「話せる日本人」を育成するなら英語の授業を増やすべきだ。また、英語教師が英語教育のみに集中できるように他の業務を減らす必要がある。

予算と人的資源を削減しないこと（お金と教師が教育を支えるから）。

教員を多めに配置してほしい。

中学校年代でもう少し英語の時間を増やして欲しい。

「何となくわかる」というレベルの英語から高校に入ってからは文法などで骨がしっかりした「英語を理解できる」レベルまでにはかなりの時間が必要になる。中学校では高校入試目的のため「ある程度何となくわかる」英語の授業がすすめられ「文法によって理解できる英語」の部分がおろそかにされ生徒自身も「何となくわかる」レベルで満足している者が多い。中学校での英語の時間の充実は望まれるところである。

日本の英語教育特にスピーキングの面で世界の能力に劣っている（確実に）のでスピーキングの能力や興味を伸ばすクラスを増やすべき。日本人はミスを恐れているので、文法なども完璧にしようとしがちでいて、スピーキングでさえ考えすぎの傾向がある。

興味のない生徒にまで必修で教えることはない。日本語の能力にも疑問点がある生徒に英語は必要ではない。英語をマスターしようと思うならば、毎日２時間は授業をする必要があると思う。

小学校英語が劇的な知的能力の改善やコミュニケーションの向上に貢献することは絶対に無いかと思います。現場の混乱を招くだけのこのような改悪は即刻中止していただきたい。

EFL環境である日本においては、コミュニケーションを通じた指導法だけではなく、文法を教えたり、ライティングを授業で行うことも必要もあると思う。コミュニケーションと文法を対立するものととらえるのではなく、英語を学ぶうえで両方とも大切ななものだととらえた方が良いと思う。文法を体系立てて教えない学校があるがその指導法と成果にとても興味がある。

より具体的な教育目標と、それを達成できる教科書・教材の必要性を訴えます。コミュニケーション能力を高めるのにははたしてふさわしい教科書なのか疑問に感じます。読解力を求める教材でコミュニケーション能力を高めるというのはいかがなものでしょうか。

文科省の思惑と現場がうまく合っていない。これが一番の問題と考える。

小学校は5,6年から教えていくのか。中学→高校との連携は必要である。

小学校での英語教育には賛成できません。まずは、母国語の日本語をきちんと話すことが優先だと思います。敬語や TPO に合わせた日本語を学ばせるべきです。
英文法を教えることや、訳読式の授業をすることが、communicativeな英語を教えることと、対立するものではないと考える。大学入試問題を解くこともすべてはcommunicativeな英語につながるものと考える。communicativeの意味をあまりせまくとらえると、かえって、将来につながらない、その場限りの会話重視の授業になってしまうのではないかだろうか。現在の高校教育では（少なくとも進学校では）、基礎を身につけさせることであることが大切であると考える。

単語を覚えることを重視してほしい。

理想を現実に近づける努力はもちろん必要だが、現状を理解することはもっと必要なことではないだろうか？経済界の求めに応じ、一部のエリートを養成するような方針であれば、それには一考を求める。地方には、英語学習に対してのモチベーションもなく、アルファベットも覚えていない生徒もいて、授業を成立させるのに工夫している教育もいるのです。

中学と高校で求められる英語力に悩まされます。中学ではほとんど文法用語を使わず教わってくるのですが、基本的なことを説明しようとする時に"be動詞"や"一般動詞"という単語を使わずに次のステップをむかうことが難しく、中学でもっと時間をかけて基本的事項を固められたら、と思います。英語教育を考える上で、国語教育は欠かせないと思いますので、“国語”の教育も望みたいところです。

語彙力アップを図るためのスペリング・ビー大会やボキャブラリーカを選考するなど工夫してほしい。

さらに「実用的な英語」を教えられるように変化して欲しい。

難解な用語や理屈で、現場を惑わせる方向性の示唆ではなく、明確で客観的、実現可能な目標の明示をして欲しい。5年、10年などでの短中期スパンでの目標明示をして欲しい。

何を信じ、実践してよいのか、すべきなのか。他教科と比べあまりにも英語教育が自由で、それゆえ苦しく不自由です。理論・実践方法はたくさんあり、どれも正しく全否定なできるはずもなく、結局各教師の"better"がまたは"best"と信じることが今の英語教育の現状だと思います。ぜひ今後は英語教育の"best"がどの教室にも実践できればと思います。

All Englishでの授業や、函館中部ラウンドシステムの実践で生徒の英語力（模試の成績も含めて）が上がったという報告・発表を聴きますが、実際そのまねごとを授業でやってみても、力をつけられたという実感がわきません。（もちろん、方法の改善や評価法に関しても検討が必要だと思う）最終的には、入試制度（問題も含め）に対応できる力と文科省の言う「英語が使える」力がどれだけ近いものとなるかが大切だと思います。

個人まかせではないコミュニケーション能力を高めるためのコミュニケーション研修やモデルプラン（授業）の研修を道教委がしっかりと実施するべき。

小・中・高・大と、同一スケールで（カルテのようなもの）学習者の英語力を診断し、それに対する処方箋のようなものを全国レベルで用意して、それに従って学習指導できるようなものを是非考えて下さい。
オールイングリッシュによる授業展開への移行期間の設置。

オールイングリッシュの授業について、情報を積極的に求められるような環境が欲しい。

今後の英語教育がどこに向かって行くかわからない。

新学習要領が実施されて、どういう授業をみなさんされるのか楽しみです。

国は英語を日本人の第二言語としようとしているかもしれませんが、それは無理なことです。そういう環境が日本の社会にはほとんどありません。英語がわからないと困る、不利になる、生活していかない、そういう状況がないとった歳 3-4 時間の英語の授業だけで、英語を身につけさせるのは不可能です。小中では日本語で授業を行うが、高校では全て英語で授業を行う、とか、テレビ放送の半分は英語放送とする、のようにして行かないと無理です。自分の生徒が、大学受験で点数がとれるようになりたい希望するのなら、その手助けをしたいと思うし、英語をいっぱい話し、と希望するなら、そういう形の授業をしてあげたいと思います。文科省より生徒が大切です。

研修、研究体制をみんなで盛り上げて、教師自身が教えることを楽しみ、英語を通じて生徒を喜ばせ、生徒を幸せにしてあげよう。

「1人の5歩より5人の1歩」 - コミュニケティブな活動をする上で少しずつ頑張りましょう。

All English の授業の具体的なマニュアルなどが欲しい。

社会環境として、TV チャンネルで他言語の番組が通訳なし、字幕なしで放送されていてほしい。便利な世の中になりすぎていて言葉の鎖国状態に現在はある。

日々研鑽されている先生は、素晴らしいと思います。アンケートの集計等まで多忙な日々は、続くと思いますが英語教育のために御尽すされることが願っております(乱筆乱文お許しください)。

全国全道の先生同士で互いの教育技術を磨き合う機会が多くあって欲しい(研修等)。先日海外研修に出かけ、非常にたくさんの刺激をもらうので、皆さん海外経験を重ねたい。そういう機会を多く持てるような環境にたい。

意見や要望は特にありません。英語教師自身が最大の資源であるという覚悟を持って、生徒のニーズを見越るものを提供していけるよう研鑽を積んでいくことが大切だと思います。私自身も一学習者として学び続け、成長し続ける教師でありたいです。

* The code numbers represent the following classes: 1 = Small class size.  2 = Change university entrance exams.  3 = High school English education objective must be equal to university English education.  4 = Less diversified students' English skills/knowledge in one class.  5 = Nonsense to teach all through English to every student.  6 = Less workload that is unrelated to teaching English.  7 = Secure time/money or both for English language skills improvement.  8 = Why is only English education criticized?  9 = Need more teaching staff members and more budget.  10 = Increase the number of class periods per week.  11 = No use teaching English to primary school pupils.  12 = Should
teach basic forms more. 13 = Show a feasible path toward teaching communicative English. 14 = Unable to be classified.
Appendix E: Sample annotated transcriptions of Terashima’s classroom English in 1950

<i>Classroom English vol.2</i>
<i>I_At_the_Beginning_of_the_Lesson</i>
<i>I_Morning_Greeting</i>
<i>M</i>
Stand up!
<i>M</i>
Wait a moment. Some of you were slow in standing up. Try again.
<i>M</i>
Stand up!
<i>T</i>
That's right.
<i>M</i>
Bow!
<i>M</i>
Sit down!
<i>/I_Morning_Greeting</i>

. . . .

<i>3_Late-comers</i>
<i>T</i>
You are ten minutes late, Iida. Why are you so late? Can you explain to me why?
<i>T</i>
This morning I overslept myself.
<i>or/> I forgot my book, and had to go back for it.
<i>or/> There was trouble with my tram-car.
<i>or/> My watch was slow, and I didn't know it.
<i>S</i>
I am very sorry to hear that. You must not be late again. Do you understand?
<i>S</i>
Yes, sir <i>or/> madam.
<i>S</i>
You may go to your seat.
<i>T</i>
I am surprised that you are late. If I remember right, this is the first time that you have been late, isn't it?
<i>S</i>
Yes, I have never been late before, so I am the more sorry indeed.
Where did we get last time?

We got to the end of Lesson four, and we are to read the new lesson this morning.

What page, please?

Page twenty-six, sir/madam.

Then open your books at page twenty-six.

What was the lesson about?

Can anyone tell me what we read at our last lesson? Well, Tomita, you try.

I am sorry, sir/madam, but I've almost forgotten.

You must study harder. Any one else?

Sir/madam, may I try?

Certainly.

First of all, I'll write on the board the new words in the lesson. While I write, you copy them in your exercise-books. I'll write these words down on the board, together with
their phonetic signs, and as I do so, you read them aloud one by one after me. Well, let us repeat them. The boys of this row read the words in the first column, all together. Next, this row read the middle column, all together. Class, now read all these words as I point to them one by one.
</T>
</4_New_Words_in_the_Lesson>

....

</Classroom English vol.2>
Appendix F: Classroom English sample in plain text (Gardner & Gardner, 2000)

good morning. good afternoon. sit down, please. take out your books. take out your pens. take out your homework. open your books at page xxx. give me your homework, please. listen. listen carefully. listen to me. listen to xxx. watch and listen. everyone, repeat after me. everyone, repeat xxx. xxx, repeat after me. xxx, repeat after yyy. say it again, please. say it more slowly, please. say it louder, please. say the whole sentence, please. repeat the whole sentence, please. read the whole sentence, please. say it in English please, not . what is this word in ? what is this word in our language? where is the stress in this word? syllables. tomorrow. tongue. lips. listen to me everyone, repeat after me. girls, repeat after me. boys, repeat after me. , repeat after me. take out your pens. take out your pencils. take out your colored pencils. draw a picture of a an . color the picture. copy these words into your books. rule a line under the word a word, please. i want you to do exercise six. answer the questions on page eight. yes, certainly. do you understand what to do? do not start yet. you can start now. put your hand up if you have finished. put your hand up if you have not finished. i want you to work on your own. , come to the front, please. go back to your seat, please. i want to work with . get into pairs. has everyone got a partner? , have you got a partner? and , come to the front, please. go back to your seats, please. compare your answers with your partner. i want you to work in groups of three people. i want you to work in groups of four people. i want you to work in groups of five people. this is group one. this is group two. i want , , and to work in group one. get into your groups now, please. is everyone in a group? , are you in a group? group , come to the front, please. go back to your seats, please. i need a volunteer from each group to write the answers. i need a volunteer from each group to draw a picture. pick one person from your group to write the answers. pick one person from your group to draw a picture. work on you own.
work in pairs. work in groups. everyone look at the board, please. come to the board, please. write on the board, please. draw a picture of please. put your picture on the board, please. underline please. thank you. go back to your seat, please. everyone, read this word. read this word. say it again. everyone, read these words. read these words. say them again. everyone, repeat after me. everyone, repeat . repeat after me. copy these words into your books. what is this word in our language? what is this word in ? do you understand? put up your hand if you do not understand. write on the board. write in your book. take out your books, please. give out the books, please. who has not got a book? share your book with , please. open your books at page , please. turn to page , please. turn over, please. look at the picture, please. can you see a an ? can you see some ? point to a , please. point to some , please. look at exercise , please. point to exercise , please. take out. give out. open at. look at. turn to. point to. turn over. fill in. start at. listen to the cassette now. listen to the cassette. can you all hear? put up your hand if you can not hear. stop talking and listen. listen carefully. did you hear the ? listen again. i will play it again. listen and repeat all together. listen and tell me . listen and answer the questions. let's watch the video now. watch the video. can you all see? put up your hand if you can not see. stop talking and watch. watch carefully. did you see the ? watch again. i will play it again. watch and answer the questions. play. record. fast forward. pause. now we will play a game. get into two teams. guess what it is. guess where it is. guess who it is. guess what's missing. whose turn is it? now, it is your turn. it is turn now. a point for team two. this team has won. well done now we will sing a song. let's all sing a song. winner. the next round. loser. it is a tie. verse. chorus. is that right? is that right or wrong? what is the right answer? what do you think? has anybody else got an idea? put up your hand if you do not understand. what do not you
understand? tell me in what you have to do. put up your hands if you know the answer. sit down, please. everyone sit down, please. , sit down, please. quiet, please , be quiet, please. stop talking listen listen carefully listen to me. listen to . listen to the tape. , turn round, please. sit still, please. sit still and listen. sit still and listen to me. sit still and listen to . sit still and listen to the tape. look at me, please. look at the board, please. are you ready? do not start yet. start now stop writing, please. stop working, please. stop what you are doing, please. stand up, please. stand up, please. come here, please. hurry up go back to your seat, please. be careful do not touch excellent very good that is excellent that is very good very well done good that is good. well done great yes, that is right - good that is it yes ok that is better that is better - well done that is nearly right - try again that is almost right - try again not quite right - try again not quite right - will someone else try? not quite right , you try no - that is not right. try again no - that is not right. will someone else try? no - that is not right. , you try this is your homework. i want you to do exercise nine. i want you to learn the song. i want you to color the picture. i want you to draw a picture of i want you to learn these new words. close your books, please. put your books away, please. , collect the books, please . . . and put them on my desk.
Appendix G: NNI demonstration transcription sample (on MEXT DVD, 2012)

Note. The following depicts part of classroom speech of one of five NNIs on DVD.

<NNI_5>

OK, then, let's start today's class. How are you today?

OK, then, so, let's start today's lesson with small talk as usual. So, from now, you will make pairs and have a conversation. Today's conversation's topic is "What will you do during the spring vacation?" OK? What's your plan during the spring vacation? OK?

Stand up.

OK. Play. OK. Winers, raise your hands. You will start the conversation. OK?
OK. Thirty seconds. Ready, go.

OK. Switch roles.

Then, please finish the conversation.

So, now I know you have many plans of the ah, spring vacation. Right?

OK. So, ah, will someone do a volunteer to have a conversation with me? OK?

Oh, OK, then, please. So, how are you doing?

Oh, you are sleepy. Ah, what time did you sleep last night?

Nine O'clock? Then, what time did you get up this morning?

Six O'clock? So about nine hours you slept.

But still you are sleepy. OK, OK.

Ah, I'm so nervous now. Still now, I'm so nervous.

Thank you. OK. So, ah, what are you going to do during the spring vacation?

Oh, Toyota stadium. So, ah, why you will go to Toyota stadium?

To watch soccer? Ah, so, you like soccer?

Which do you like soccer? Soccer or hockey?

Wow. That's top secret, right? OK, so, ah, which teams will you, will play?

? Really?

So, you got the ticket?

Wow. Oh, really. So, ah, who is your favorite player?
Do you know? Honestly, I don't know. Ah, uh ha. Maybe, OK.

Me? Ah, I like the captain, and also I like, goal keeper. Sorry, captain, the goal keeper.

, goal keeper. OK. So, ah, with who will you go?

You will go?

to the Toyota stadium?

to watch soccer?

the

Oh, nice.

I know. OK. So, wow, so, when will you go?

Oh, last day of February. So twenty-ninth?

of February?

OK. Good. Good. OK. Have fun, both of you.

OK. Sit down. Very good. OK.

OK, so, go back to your seat.

Let's go on to the today's material. So, I know you are so curious about what happened to Rosa Parks. OK. So, today, please take out your textbooks, and open to page one hundred thirty-five. One hundred thirty-five. OK, so, from now first reading. You will read this passage quickly to grab the gist of the passage. OK, so, today's reading points are who is in the passage, OK, and when the incident happened, and lastly, where it happened, OK? Those, who, when, and where are the reading points for today, OK? OK, so, OK, so, have your pens and pencils. While you are reading, please underline those words, OK? Are you ready?

</NNI_5>
Appendix H: Petition to the ethics committee for research on human subject

様式１
受付番号

人間を実験調査等の直接対象とする研究審査申請書

平成23年 5月18日
北海道大学大学院国際広報メディア・観光学院長 殿

申請者 所属 国際広報メディア 専攻
学年・氏名 博士後期課程3年 片桐 徳昭

人間を実験調査等の直接対象とする研究審査に関する申合せ第3条第1項の規定に基づき、下記のとおり申請します。

記

1. 研究課題名
授業コーパスを用いた英語教科教育法指導が教育実習生の模擬授業に与える効果に関する調査

2. 研究期間
平成23年 6月2日 ～ 平成23年 7月17日

3. 研究責任者
所属 北海道大学大学院メディア・コミュニケーション研究院 氏名河合 剛(准教授)

4. 共同研究者
北海道教育大学 札幌校 教育養成課程・基礎学習開発専攻 横山 吉樹(教授)

5. 研究の概要（実施場所、所要時間についても記入のこと。）
英語教科教育法を受講している学部学生に模擬授業を実施してもらい、その様子と発話をビデオとICレコーダーにより撮影、録音する（プリテスト）。その後、各自自分の模擬授業の発話部分を書き起こす。次に、申請者が作成した授業コーパスを示すことにより、教師の発話や、生徒とのやり取りを学習し、書き起こした自分の授業に関して内容を改善点を学習する。最後にもう一度同じ教材を使った模擬授業を実施してもらい、その様子と発話をビデオとICレコーダーにより撮影、録音する（ポストテ스트）。再び書き起こしをし、プリテストとの発話内容を比較することにより、授業コーパスの効果を測定する。
実施場所：北海道教育大学札幌校 一般教室
所要時間：1人10分程度をプリテスト1回とポストテスト1回で計2回実施。1回の書き起こしに（発話量の多少に応じて所要時間は変化するが）1時間～2時間程度

10-34
6. 対象者（予定）の内容（人数、年齢、性別、職業等）

対象者 北海道教育大学 札幌校 教育学部 教育養成課程の学生で、「中学校英語科教育法Ⅲ」を受講中の学生。
人数 25名。男性15名、女性10名。
年齢 20〜23歳。

7. 研究の対象者の、基本的人権が問題となる局面への配慮
① 対象者の身体への負荷や観測が伴うもの（空間的・時間的拘束を伴うもの、運動・温度の負荷あるいは飲食・吸引が条件として伴うもの、眼球運動の測定など身体的観測が伴うもの）
→実験(撮影)時間は被験者と相談して都合の良い日時を決定する。撮影は対象者が日常使用している大学の教室を使用する。撮影時間は極度に短くも長くもない時間(10分程度の模擬授業)を設定し精神的負担を軽減した。
② 対象者のプライバシー又は人権を侵害するおそれのあるもの（対象者の特定が問題を引き起こす可能性のあるもの、セクシュアル・ハラスメントの可能性のあるもの、調査者が対象者から見て上司や教師であったりして社会的力関係において劣位にあると考えられるもの）
→被験者は実験参加によって対価を得ないので、賃金を期待する労働者というよりも、むしろ教育や科学の進歩に役立つしたいとの願いから自由に参加するボランティアであって、かつ、実験に参加しなくても制裁がない。参加が強制される恐れはない。
③ 研究遂行過程において、対象者的人生としての尊厳を脅かすおそれのあるもの（対象者に屈辱的な経験を強いるもの、個人的な秘密暴露の強要などにより精神的な苦痛を与える可能性のあるもの）
→研究対象は対象者の模擬授業における発話なので、個人的私密を語らせたりすることは無く、それによる精神的苦痛を与える可能性はないと考えられる。

8. 対象者に理解を求め、同意を得る方法（次の各項のいずれかを〇でかこみ、あわせて説明の具体的内容を記すこと。）
1) 対象者に理解を求める方法
① 対象者に書面で説明する。（書面を添付すること。）
② 対象者に口頭で説明する。（説明の具体的内容を添付すること。）
2) 対象者の同意を得る方法
① 各人の署名入りの同意書を保管する。（署名前の同意書を添付すること。）
② 各人の同意の署名が記された調査票を保管すること。（調査票を添付すること。）
③ 同意書が署名されない場合、署名を求めない具体的理由を記すこと。（署名を求めない具体的理由を記すこと。）
（対象者が未成年者、成年で十分な判断力がない場合又は意識のない場合、その他対象者に調査・研究の本意を説明できない場合などは、その対処を記すること。）
9. 研究の実施及び成果の利用に伴って生ずる対象者への不利益及び危険性に対する配慮

収録した映像に関しては、パスワードで保護してGlexaのサーバー上に保存し、実験者と対象者としかアクセスすることができないようにする。また、収集したデータの公表時には、データ主は匿名扱いとし、個人の特定が出来ないように配慮する。

10. その他

備考：審査申請書の記載に関しては、次の点に留意すること。
1. 各項目の記載は、できるだけ具体的かつ詳細に行うこと。
2. 項目5〜9に該当する内容が記された研究計画書があれば、それを添付することをもって項目5〜9に代えることができる。
Appendix I: Research consent form

授業コーパスを用いた英語教科教育法指導が
教育実習生の模擬授業に与える効果に関する調査

配布予定日: 2011-06-02

実験（調査）の説明

私たちが、北海道大学大学院メディア・コミュニケーション研究院の河合剛と国際広報メディア・観光学院の片桐徳昭（札幌開成高校英語科教諭）です。現在、教育実習生（student teachers）の英語の授業発話に関するコーパスの効果を研究しています。みなさんが将来教壇に立ったときに英語の授業で英語が少しでも有効に使用できるように、あなたの模擬英語授業での発話を調べ、そのデータを英語教育の発展と授業コーパス研究のために使用させて下さい。

あなたにご協力いただく内容は次の通りです。

■ [実験 1] あなたは中学のある 1 時間の授業を想定し、その中である特定のパートを英語で生徒に見立てた同じ班の 4 名程度の学生に模擬授業をします。1 回の模擬授業は約 10 分です。授業内容は事前に示されます。

■ 同じ班の他の人が教師役になった時には、生徒役になり模擬授業に参加します。

■ 模擬授業は録画・録音されます。あなたは、自分で教師役の時の記録（音声部分）をテキストファイルに書き起こします。

■ 書き起こすときに、「誰が（教師または生徒）」、「どのような場面（タスクの説明、タスクの開始、タスクの終了など）、」「どのような種類のやり取り（陳述、発問、指示、評価、質問、フォローアップなど）」について簡単なタグ付けをします。書き起こしは、模擬授業での発話量にもよりますが、概ね 1 時間から 2 時間程度です。

■ 研究者が作成した授業コーパスのスクリプトとビデオを見て、現場の教師の発話を学習します。最初の模擬授業で改善したい点があればその点について復習し、改善策を考えます。

■ [実験 2] もう一度同じ教材と、生徒に扮した同じ学生を相手に模擬授業をします。その後、再び音声部分をテキストファイルにタグ付けをして、書き起こし、研究者に提出します。

あなたから得るデータは研究目的以外には用いません。研究成果を発表するとき、あなたは特定されません。あなたの氏名を記すのは下記の同意書だけです。書き起こしたスクリプトやビデオテープにあなたの氏名を記しません。スクリプトや録音とあなたを結びつける方法は、ありません。研究成果を聞いたりする人たちが、あなたのスクリ

10-37
リプトとあなたを結びつける方法は、ありません。データの保管に細心の注意を払い、他に漏らしません。教育や研究にご協力いただける場合も、ご協力いただけない場合も、成績への加点や金品などの謝礼はありません。またこれから受ける英語の授業やテストの成績などにおいて減点などの罰則もありません。承知しても、断っても、利益も不利益もありません。

以上を理解し、同意し、実験に参加してくださる方は、以下の同意書に署名してください。

同意書

私、__________________________（氏名を記入してください）は、上記の実験の説明を理解し、同意し、実験に参加します。この同意書は2部作成し、私が1部を、片桐徳昭が1部を持ち合います。

________年___月___日 ____________________________ (署名してください)

________年___月___日 ____________________________ (署名してください)

連絡先:
〒060-0817 北海道札幌市北区北17条西9丁目
北海道大学大学院メディア・コミュニケーション研究院 准教授 河合 剛
goh@imc.hokudai.ac.jp
〒065-8558 北海道札幌市東区北22条東21丁目1番1号
北海道札幌開成高等学校 教諭 片桐 徳昭 Tel: 011-781-8171
kotonomichy@nifty.com
実験終了後、ご質問などがありましたら、いつでもご連絡ください。
Appendix J: Pretest participant transcription sample annotated by the participant
[cleansed by author]

Pre44
<tra:boundary remarks>
<INSTRUCTOR>OK. Now let's move on to next activity.</INSTRUCTOR>
</tra:boundary remarks>
<tra:beginning of the instruction>
<INSTRUCTOR>I'll distribute my worksheets. My worksheets is two sheets.
</INSTRUCTOR>
</tra:beginning of the instruction>
<tra:instruction>
<INSTRUCTOR>Please look at task 1. You use students list below and fill in the blanks. Students list is page 2. Do you have worksheets? And first, I wanna show you example. Syuri, please answer my question in my worksheets. What does Mike want to play?</INSTRUCTOR>
<41>He wants to play baseball.</41>
</tra:instruction>
<tra:instruction>
<INSTRUCTOR>OK. Thank you. Do you understand what we should do? OK, please fill in the blanks from number 1 to 4.</INSTRUCTOR>
</tra:instruction>
<tra:individual work>
<INSTRUCTOR>Then, first, Toshitaka, what does Yuki want to play?</INSTRUCTOR>
<42>She wants to play basketball.</42>
<INSTRUCTOR>OK, good. Ah, number 2, Saki, what does Takuya want to play?</INSTRUCTOR>
<43>He wants to play soccer.</43>
<INSTRUCTOR>OK, thank you. Number 3, Kentaro, what does Miho want to play?</INSTRUCTOR>
<45>She wants to play tennis.</45>
<INSTRUCTOR>OK, thank you.</INSTRUCTOR>
<INSTRUCTOR>Um ..., number 4, Sayuri, what does Eri want to play?</INSTRUCTOR>
<41>She wants to play soccer.</41>
<INSTRUCTOR>OK, OK, thank you.</INSTRUCTOR>
<INSTRUCTOR>Was it easy?</INSTRUCTOR>
</tra:individual work>
<tra:boundary remarks>
<INSTRUCTOR>OK. Please look at Task2.</INSTRUCTOR>
</tra:boundary remarks>
<tra:beginning of the instruction>
<INSTRUCTOR>I want you to write down what you want to do this weekend and interview classmates and fill this.</INSTRUCTOR>
</tra:beginning of the instruction>
<tra:instruction><INSTRUCTOR>In my case, I want to go to Maruyama Zoo this weekend. How about you, Saki?</INSTRUCTOR>
<43>Mn ... </43>
<INSTRUCTOR>Ah, I'm sorry. First, I have to show you example. Then, I'm A, please B. I want to go to Maruyama Zoo this weekend. How about you, Saki?</INSTRUCTOR>

<43>I want to play base...basketball. </43>

<INSTRUCTOR>OK, thank you, thank you. And, ok, please everyone stand up and interview each other. Oh, I'm sorry.</INSTRUCTOR>

<tra:instruction>
<tra:feedback>
<INSTRUCTOR>Yes, ok, please everyone sit down your seat. Kentaro, what does Sayuri want to do this weekend?</INSTRUCTOR>

<45>She wants to go lunch with her friend.</45>

<INSTRUCTOR>What do you want to eat?</INSTRUCTOR>

<41>Italian.</41>

<INSTRUCTOR>Oh, so good. Mn ... Toshitaka, what does Saki want to do this weekend?</INSTRUCTOR>

<42>She wants to cook Ichigodaifuku.</42>

<INSTRUCTOR>Ichigodaifuku? Do you like cooking?</INSTRUCTOR>

<43>Yes.</43>

<INSTRUCTOR>I want to eat it.</INSTRUCTOR>

<tra:feedback>
<tra:end of the instruction>

<INSTRUCTOR>Mn .. oh, I don't have enough time. Ah, please look at your wooksheets, Task 3. This is your homework. Next week, I'll ask you this question, ok?</INSTRUCTOR>

<43>OK.</43>

<INSTRUCTOR>OK, that's all for today, thank you!</INSTRUCTOR>

<tra:end of the instruction>
Appendix K: Transcription sample from the classroom video corpus

Handout for 「中学英語教科教育法 III」

2011-07-06

2007-07-05

<22:40>

<JT explains points in the texts.>

<JT>

All right. Next. Points. Points, points, points. OK. Ah, look at page forty-four. OK? Forty-four, and line fourth..., fifteen, sixteen, seventeen. "They were put back together on the present location." OK. Here, you need to draw some pictures, OK? Ah, there is an empty space here in the sheet, or if you can write the, draw pictures in your notebook, that's fine, OK? Here is what it will look like, OK? This is a picture of Abu Simbel on the Nile. All right. So, ... this is a river. The river Nile. OK? The river flows, OK? And this is the bottom of the river, OK, the bottom, OK, of the Nile river, and this is the land, OK, and here is the cliff, OK? And we will, in the past, before the dam was made, the monument was here. The monument was here, OK? The monument, Abu Simbel, OK, Abu Simbel was here, OK? And they built a dam, OK, the dam, and the dam was built. The water of the Nile river rose, OK? Rose, rose, rose, rose, OK? Rose, OK? Rose, OK? Water was all over here, OK? All over here. The water, OK? OK, this is the water. OK? So, if people did nothing, OK, Abu Simbel was under water. No more Abu Simbel. We cannot see. OK?

What was the British scientist's plan? The British scientist's plan was to put the Abu Simbel right here, and when the water rose, it looks like an aquarium. OK. We can see Abu Simbel like a fish, OK? Fish. But now, there was another plan, OK? So, they cut Abu Simbel into more than sixteen thousand pieces, OK? More than sixteen thousand pieces, OK? Sixteen thousand pieces. "cut into more than sixteen thousand pieces" and they put them back together here, OK? put them back together here into higher location, OK? These are the small temples ... here. So, even if the water rose because of the dam, we can visit Abu Simbel. OK? And this is called Abu Simbel's present location, OK, present location. "present" means "now." OK. "present" means "now." OK. But, before the dam was built, Abu Simbel was here. OK? Abu Simbel was here. So, this is called the "original location," OK, "original location," all right. In this sense, "original" means "past." "past location." Not any more, OK? Now, Abu Simbel was cut into more than sixteen thousand pieces, and put them back together, and it now stays here. This place is called a "present location," right?

</JT>

<JT explains points in the texts.>

<JT instructs drawing task>

<JT>

So, I want you to draw this picture, OK? Draw this picture. The same picture is drawn on page forty-four. OK? The same picture is from page forty-four. OK? So, remember, Abu Simbel is a monument, and they are temples. OK? ... And they were built into a cliff. And now, they were brought up high here, and also put together into a cliff. OK? Cliff. OK? The original cliff was now under water. OK? We cannot see. Now, it's in present location. There is another cliff and new Abu Simbel was, is here. OK? Do you understand? So, please draw pictures. Here, or in your notebook. OK? This will be your next quiz tomorrow. Please draw a picture. Two minutes. ...</JT> <29:50/>

<JT>

All right. Draw a picture, and learn these key words, OK? "small temples" "original location," "present location," "cliffs," OK? "cut into," and "put together." "put together," OK? "put together," OK? Abu Simbel, very important famous monument, OK? These are very, very important words. We talk about Abu Simbel, OK? Quickly, quickly, not just (a) picture. Key words, "present location," "monument," "put together," "to present location," OK? "temples," "cliff," OK? And if you notice direction, ... if you notice direction, OK. If you notice a direction, you'll see another interesting fact. You can remember it. But now, quickly draw this picture, I'll explain it later. </JT>

</JT instructs drawing task>

<33:06/>
If this showing a picture, ... where is the sanctuary? Please, put sanctuary in your picture.
Where is it? Where is the sanctuary? Please, put the sanctuary in your picture. Where is it? Please remember. ... Where is the sanctuary? ...</JT>

<JT instructs pair task>

OK. Now, make pairs please, and show your art to your partner. "This is my picture."  "My drawing of Abu Simbel. Can I see yours?"

<Students talk in pairs/>

OK. Make pairs. Go. Put your desks together. ... All right. Ask your friend, ask your partner. Say this phrase. "Can I see yours?" Go ahead.

<Students talk in pairs/>

"Oh, that's excellent!" "You are good at drawing." "My drawing is not good." ... OK, then, ask your partner the next question. "Where is the sanctuary?" Ask your partner. "Where is the sanctuary?" "Where is the sanctuary?" "Where is the sanctuary?" "Where is the sanctuary?"</JT>

<Students talk in pairs/>

<JT asks one student to draw the picture on the board>

OK. The sanctuary. OK, I'll ask one student. Number five. Who is number five? ... Ah, Mr. Kasai. Can you do that? Can you do that? Can you come and draw where the sanctuary is? Yes. OK. Please draw a sanctuary. ...</JT>

<JT asks one student to draw the picture on the board>

<Students answers on the blackboard.>

<JT consolidates the task>

OK, wait, wait, wait, wait ... Where is sanctuary? Oh, what? ... Wow, on the statue. Oh, there's another key word. "Statue." OK? "statues," Four statues of Ramses, II. OK? So, the sanctuary is on the statue. No. Where is it? ... "in" "Into" the temple. OK? Good. Thank you. It's kind of hard, ... Thank you very much. Well, you can see an entrance hall here, OK? Write "an entrance hall" in your ah, drawing , in your notebook, OK, entrance hall here. Entrance hall, you go in. You go in, into the, OK, into the entrance hall, you will see a sanctuary. OK? Very, very difficult to draw a sanctuary in your picture. OK? There is an entrance hall, and you go into the sanc, ..into the temple, and you will see the sanctuary. OK. One thing. What's this? This is called four directions. OK? North, south, west, and east, OK? Four directions. Four directions. <Japanese/> Four directions. Four directions. North, south, west, and east, OK? So, when the sun rises, OK? In which direction does the sun rise? North, south, west, or east, OK? Let me ask, Erika. In which direction does the sun rise? ... Stand up. North? West? In the west? Or in the south? In the east? </JT>

<Student answers JT>In the east.</Student answers JT>

<JT>"In the east." Very good. So, when the sun rises, OK? Draw a sunshine. The sun rises, sun rises, OK? Sunlight. Sunlight goes in to the sanctuary, OK, in the east. And you will see the direction. Sun rises. The sunlight goes in, into the sanctuary, OK? But when the sun <Japanese/> sun rises in the east, and sun sets in the west, OK? Sun sets in the west. Sun sets in the west. The sunlight goes this way. OK? The sunlight goes this way. So, the sun cannot light up the sanctuary when the sun sets, OK? So, only it's in the morning, the sun shines, and the light goes into the sanctuary. ... Remember the story. All right? So, you, today, you review the many words, OK? "statues," "location," "monument," "cliff," "cut into," "put together," OK? "sanctuary." Please remember this picture, OK? Tomorrow, you may have (a) quiz. ... OK? All right. OK? </JT>

<JT consolidates the task>

<43:21/>
Appendix L: Written questionnaire after the posttest

Using a classroom corpus for preservice language teacher education

Project survey

Your responses to the following questions are appreciated. You may respond in English or Japanese.

Q1. Have you ever transcribed your own recordings before? How much time did you spend on transcribing your lesson this time? What did you learn?

Q2. How will your teaching improve through the use of classroom discourse notions, namely transactions, exchanges (boundary and teaching), initiation, response and feedback/follow-up?

Q3. What notion in Q2 seems the most effective? The least effective? Why?

Q4. What did you learn from reading the classroom corpus text? How did you use the classroom corpus text in planning and giving your posttest mock English lesson?

Q5. What did you learn from watching the classroom video clips with audio? How did you use the video clips in planning and giving your posttest mock English lesson?

Q6. What did you learn from the corrected transcription with comments and suggestions by the instructor? How did you use the corrections, comments and suggestions in planning and giving your posttest mock English lesson?

Q7. What did you learn from this project's lectures? Be specific.

Q8. Would you recommend that next year's students engage in mock lessons? If you answered yes, would you recommend that next year's students view video recordings of themselves? If you answered yes, would you recommend that next year's students transcribe their speech? *

Q9. Answer this question only if you gave a mock lesson on July 13. How did your mock lesson improve the second time? What caused the improvement?

Q10. How can this project be improved? Your suggestions are most appreciated.

Thank you.
Appendix M: Annotated posttest transcription sample

post51

<i>instructor</i>OK. Let's practice <filler></filler>, how to use the word, "ask." OK? <i>/instructor</i>
<i>/sts></i>Yes. <i>/sts></i>
<i>/instructor></i>OK. I'll give you a handout. Here you are. <i>/instructor></i>
<i>/st></i>Thank you. <i>/st></i>
<i>/instructor></i>Here you are. <i>/instructor></i>
<i>/st></i>Thank you. <i>/st></i>
<i>/instructor></i>OK. Look at in your handout. Today, we are going to do two tasks. OK? Task one and task two. <filler></filler>, OK, <filler></filler>, look at your handout, and task one. <i>/restart></i>Here, <i>/restart></i> <filler></filler>, there are four pictures. And I want you to look at the pictures, and make a correct answer. OK? <i>/instructor></i>
<i>/sts></i>OK. <i>/sts></i>
<i>/instructor></i>Example, <i>/repeat></i> <filler></filler>, example is "My mother asks me to clean the room." This is my mother. This is me. OK? <filler></filler>, any questions about this task? OK? OK. So, let's start. I'll give you two minutes. <i>/instructor></i>
<i>/sts></i>
<i>/instructor></i>OK. Everybody, finished? OK. Check your answers. Number one. <filler></filler>, Mana, could you tell me your answer? <i>/instructor></i>
<i>/st></i>Number one? <i>/st></i>
<i>/instructor></i>Yes. <i>/instructor></i>
<i>/st></i>She asks me to play tennis. <i>/st></i>
<i>/instructor></i>"She asks me to play tennis." OK. This is correct answer. <i>/evaluation></i> <i>/follow-up></i>Mana, do you like tennis? <i>/follow-up></i> <i>/instructor></i>
<i>/st></i> <i>/instructor></i>OK. Thank you. <i>/evaluation></i> <i>/instructor></i>
<i>/instructor></i>Number two. <filler></filler>, Takuma, could you tell me? <i>/instructor></i>
<i>/st></i>OK. I ask Yuki to make a cake. <i>/st></i>
<i>/instructor></i>"I ask Yuki to make a cake." OK. <i>/evaluation></i> <i>/instructor></i>
<i>/instructor></i> <i>/follow-up></i>OK, Takuma, what cake do you like? <i>/follow-up></i> <i>/instructor></i>
<i>/st></i> <i>/instructor></i>I like ?! <i>/st></i>
<i>/instructor></i> "Oh, I like, too. OK." <i>/evaluation></i> <i>/instructor></i>
<i>/instructor></i>Number three. Takayuki, could you tell me? <i>/instructor></i>
<i>/st></i> <i>/repeat></i>Taro, <i>/repeat></i>Taro asks her to call him. <i>/st></i>
<i>/instructor></i>"Taro asks her to call him." <i>/evaluation></i> <i>/instructor></i>
<i>/instructor></i> <i>/follow-up></i>Takayuki, did you call anyone yesterday? <i>/follow-up></i> <i>/instructor></i>
<i>/st></i>No. <i>/st></i>
<i>/instructor></i> "No. OK." <i>/evaluation></i> <i>/repeat></i> <i>/evaluation></i> <i>/repeat></i>Everyone, <i>/repeat></i> everyone made correct answer. Very good. <i>/instructor></i>
<i>/instructor></i>OK. Let's move on to the task two. Task two. Look at your handout of task two, OK? <filler></filler>, this is an interview work. <filler></filler>, ask classmates <i>/filler></i>, you can walk around the classroom. OK? <i>/instructor></i>
<i>/sts></i>OK. <i>/sts></i>
<i>/instructor></i>And you ask classmates, "Did you ask anyone these days?" "Did you ask anyone these days?" Then, <filler></filler>, the classmates answer, "Yes." If they answered yes, ask them who they asked. And what they asked. OK. Look at, look at example. <filler></filler>, OK. <i>/Japanese></i> I'll do a demonstrate. Takayuki,
could you help me? </instructor>
<st>OK.</st>

<instructor>OK. Thank you. My part is A. Your part is B. OK? </instructor>
<st>OK.</st>

<instructor>OK. Let's begin. Filler, Takayuki, did you ask anyone these days? </instructor>
<st>Yes, I did.</st>

<instructor>Who did you ask? </instructor>
<st>I asked my friends.</st>

<instructor>What did you ask them? </instructor>
<st>I asked them to play basketball with me.</st>

<instructor><evaluation>OK. Thank you.</evaluation> </instructor>

<instructor>So, this task is "Who did you ask and what did you ask them. OK. Any questions about this task? </instructor>
<st>No.</st>

<instructor>OK. OK. So, let's start this task. I'll give you three minutes. OK? </instructor>

<sts></sts>

<instructor>OK. Let's begin. </instructor>

<sts></sts>

<instructor>OK. Everyone is finished. OK. Please sit down. OK. Filler, Mana. </instructor>
<st>Yes.</st>

<instructor>Could you tell me the result of your interview? </instructor>
<st>Result? </st>

<instructor><filler>, </filler>, you can say for example, <restart>You interviewed Takayuki, right? </instructor>
<st>Yes. </st>

<instructor><evaluation>OK. Takayuki asked blah, blah, blah, to blah, blah, blah, this way. OK. Could you tell me? </instructor>
<st>Takayuki asked her, him mother to call him. </st>

<instructor><filler>, <evaluation>Takayuki asked his mother to call him. OK. Very good. </evaluation>
Appendix N: List of publications

・Noriaki Katagiri, Goh Kawai
  Lexical types and tokens found in the classroom speech of native and non-native English language instructors in a Japanese high school. *Acoustical Science and Technology*, 34(2), 94-104. doi:10.1250/ast.34.94 -Special Issue on “the speech communication and its related technologies”- Acoustical Society of Japan, Tokyo (2013-03-01).

・Noriaki Katagiri, Goh Kawai and Yoshiki Yokoyama

・Noriaki Katagiri and Goh Kawai

・Noriaki Katagiri and Goh Kawai

・Noriaki Katagiri and Goh Kawai

・Noriaki Katagiri and Goh Kawai
北海道大学大学院
片桐 徳昭 様

一般社団法人 日本音響学会
編集委員会

転載承認について

貴台からからお申し出のありました

Acoustical Science and Technology 誌34巻2号 P.94-P.104
Lexical types and tokens found in the classroom speech of native and non-native
English language instructors in a Japanese high school
（Noriaki Katagi, Goh Kawai 著）

を転載することについて

（1）出典を明記すること

（2）著者の了承を得ること

を条件に承諾します。

転載予定媒体 北海道大学大学院ホームページ

以上
Appendix O: Author’s biography

Academic background

2009-2013: Hokkaido University Graduate School

2009: MA, Hokkaido University Graduate School

1987: BA, ICU

Vocational background

2004-present: Hokkaido Sapporo Kaisei Senior High School

1994-2004: Hokkaido Sapporo Moiwa Senior High School

1987-1994: Hokkaido Sapporo Kiyota Senior High School