Statistical analyses of imagined communities

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Reference Data:

Norton (2001) introduced the concept of imagined communities to explain different patterns of language learners’ (LLs) investment in their target languages (TLs). Since then, many researchers have investigated these two factors’ relationship from qualitative approaches. The present researcher, however, investigated the relationship from a quantitative approach. He administered a survey of 248 Japanese university students to clarify their imagined communities, and also to measure statistically the correlation between the strength of the LL’s imagined communities and the extent of their investment in their TL, English, both inside and outside of classrooms (their class participation and autonomous learning, respectively). This activity enabled the researcher to grasp the LLs’ manifold imagined communities, even though they might be temporary and partial. He also discovered that the strength of the LLs’ imagined communities correlated even more strongly with their investment in autonomous English learning than did their participation in English classes.

Language learners’ (LLs) imagined communities and their investment in the target language (TL)

With increasing interest in LLs’ identities in the field of applied linguistics, many researchers have also started to pay attention to LLs’ imagined communities. Imagined communities refer to “groups of people, not immediately tangible and accessible, with whom we connect through the power of the imagination” (Kanno & Norton, 2003, p. 241). In many cases, LLs’ imagined communities
are related to the TL-related social/cultural groups which they aspire to belong to in their near future.

Past studies on imagined communities have pointed out the strong impact of LLs’ imagined communities on their efforts to improve their TL abilities, which is often called their “investment in TL.” Norton (2000b, 2006) states that the expression “investment” denotes that LLs strive to improve their TL expecting that it will eventually help increase the value of their cultural capital (Bourdieu & Passeron, 1977).

Kanno (2000, 2003) reports the case of Rui which exemplifies the strong correlation between these two factors. Rui is a Japanese teenager who had lived in Australia and Canada for two-thirds of his life. Although he had lived in English-speaking countries for such a long period of time, he perceived himself as Japanese and had strongly imagined Japan in his mind. Although his imagined Japan was an idealized image of the country, it helped Rui have a strong motivation for studying Japanese and maintaining high Japanese proficiency.

Aims of the present study

Most of the related studies conducted in the past (Kanno & Norton, 2003; Kanno, 2000; Norton, 2000a, 2001; Norton & Kamal, 2003) clarified the strong impact of LLs’ imagined communities on their investment in TL with comprehensive descriptive data of episodes and comments collected from a relatively small number of subjects through participant observation, interview, and research diary. The present researcher, however, decided to adopt a quantitative approach to pursue what was unexplored in those qualitative studies, which is the statistical measurement of the correlation between these two factors.

The reason that most of the past studies have adopted qualitative approaches can be attributed to the poststructuralists’ perspective on LLs – that is, LLs’ identities, personalities, motivations, and also their imagined communities and their investment in their TL are not fixed and coherent but changing, diverse, and also frequently contradictory over historical time and social spaces (Norton-Peirce, 1995; Norton, 2006; Norton & Toohey, 2002). That is to say that LLs acquire multiple identities through various experiences over time. One identity might stand out more than the others depending on social settings. Even if they have a strong motivation for studying their TL or have an extroverted personality, the extent of their involvement in TL conversations/activities is not always active. Their involvement in TL conversations/activities can be passive depending on who they are talking to, the subjects they are dealing with, or situations where they are working on the conversations/activities. In addition, as Norton and Toohey (2001) point out, some LL’s, such as immigrant ESL students, tend to be positioned in the host country where they can hardly access TL speakers/communities no matter how strongly motivated they are to improve their TL.

The present researcher adopted a quantitative approach in his study not because he disagrees with the poststructuralists’ perspective on LLs but because he thought the statistical data collected from larger numbers of subjects might contain fruitful information supplementing the findings of the previous studies. As Dornyei (2007) suggests in his recent book on research methodologies, the researcher strongly
believes that researchers can deepen and firm their research findings by analyzing subjects via more than one approach.

**Methodology**

The present researcher conducted a survey of 248 Japanese university students (62 freshmen, 79 sophomores, 67 juniors, 40 seniors) who study English as their TL to clarify (1) their imagined communities, (2) their investment in English outside of classes; and also (3) to measure statistically the correlation between the strength of their imagined communities and the extent of their investment in English both inside and outside the classroom. While this survey was originally conducted for the purpose of revising the curricula of English communication courses offered in the department, the questionnaire used in the survey included many questions related to the research questions of this study (see Appendix 1).

The challenges of this study were (1) how to clarify the LLs’ multi-faceted imagined communities by survey, (2) how to quantify the strength of their imagined communities and the extent of their investment in English, and (3) how to measure statistically the correlation between these two factors. To solve these issues, first, the researcher included two open-ended questions (Qs 4-2 and 5) in the questionnaire to elicit as much detailed information as possible about their imagined communities. Second, he measured the strength of the students’ imagined communities and the extent of their investment in English with a six-point Likert scale. Qs 3 and 4-1 were designed to measure the strength of their imagined communities. Qs 8-1, 12-1, 16-1, and 20-1 were given to measure the extent of the students’ class participation in four types of English classes offered in the department, while Q2-1 was intended to measure their effort towards autonomous English learning outside of classrooms. Thirdly, the researcher utilized the Spearman rank order correlation to measure statistically the correlation between the strength of the Japanese university students’ imagined communities (the results of Qs 3 and 4-1) and their investment in English inside (the results of Qs 8-1, 12-1, 16-1, and 20-1) and outside the classroom (the result of Q2-1). He employed the non-parametric technique of the Pearson product-moment coefficient test since all of the quantitative data collected in this study was ordinal, not interval (Pallant, 2007).

While he adopted a quantitative approach in this study, the researcher collected both qualitative and quantitative data. The qualitative data was analyzed by a coding technique utilizing NVivo (version 8) software, while the quantitative data was analyzed via non-parametric tests using SPSS (version 17.0).

**Findings**

**Qualitative data**

**The Japanese university students’ imagined communities**

The researcher included two open-ended questions (Qs 4-2 and 5) in the survey to explore the Japanese university students’ changeable and multifaceted imagined communities. Q 4-2 was designed to elicit their imagined communities after graduation. 219 of the surveyed students wrote comments for this question. These comments were
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separated into 249 semantic segments based on their content for analysis, and were coded into four different categories: (1) “Work-related imagined communities envisaged relatively clearly (type of business is mentioned)” \( n = 145, 58.23\% \), (2) “Work-related imagined communities envisaged vaguely (type of business is not mentioned)” \( n = 53, 21.29\% \), (3) “Academic imagined communities” \( n = 15, 6.02\% \), and (4) “No imagined communities clearly envisaged” \( n = 36, 14.46\% \). In the first category, 25 different types of careers were mentioned, and the result denotes that many of the students imagine working as English teachers \( n = 40, 16.06\% \), travel agents \( n = 13, 5.22\% \), hotel clerks \( n = 12, 4.82\% \), and also civil servants \( n = 11, 4.42\% \) after graduation (see Table 1).

Q5 was designed to explore the Japanese university students’ imagined communities in 20 years. The students were asked to answer the question assuming that in 20 years they would have developed the various types of abilities, including English abilities, sufficient to realize their ideal imagined communities. Having more options for their future under this condition, the students made more varieties of comments than for Q4-2. 198 students wrote comments for this question, and these comments were separated into 235 semantic segments based on their content. These semantic segments were coded into stratified categories because of their complexity (see Table 2). The coding results indicate that, if it is possible, many of the Japanese university students would like to continue “using English in 20 years” \( n = 158, 67.23\% \) “living in Japan” \( n = 104, 44.26\% \) mainly “at work” \( n = 77, 32.77\% \).

<table>
<thead>
<tr>
<th>Types of semantic segments</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-related imagined communities envisaged relatively clearly:</td>
<td>145</td>
<td>58.23</td>
</tr>
<tr>
<td>Become an English teacher</td>
<td>40</td>
<td>16.06</td>
</tr>
<tr>
<td>Work at a travel agency</td>
<td>13</td>
<td>5.22</td>
</tr>
<tr>
<td>Work at a hotel</td>
<td>12</td>
<td>4.82</td>
</tr>
<tr>
<td>Become a civil servant</td>
<td>11</td>
<td>4.42</td>
</tr>
<tr>
<td>Work in the world of entertainment</td>
<td>8</td>
<td>3.21</td>
</tr>
<tr>
<td>Work at an airline company/an airport</td>
<td>8</td>
<td>3.21</td>
</tr>
<tr>
<td>Work as a creator</td>
<td>6</td>
<td>2.41</td>
</tr>
<tr>
<td>Work in the apparel industry</td>
<td>5</td>
<td>2.01</td>
</tr>
<tr>
<td>Work in the sports industry</td>
<td>5</td>
<td>2.01</td>
</tr>
<tr>
<td>Work in the trading industry</td>
<td>5</td>
<td>2.01</td>
</tr>
<tr>
<td>Work in the interior industry</td>
<td>4</td>
<td>1.61</td>
</tr>
<tr>
<td>Work in the food service industry</td>
<td>4</td>
<td>1.61</td>
</tr>
<tr>
<td>Work in the IT industry/at a computer-related company</td>
<td>3</td>
<td>1.20</td>
</tr>
<tr>
<td>Work in the publishing industry</td>
<td>3</td>
<td>1.20</td>
</tr>
<tr>
<td>Work as a librarian</td>
<td>3</td>
<td>1.20</td>
</tr>
<tr>
<td>Work at a transportation company</td>
<td>3</td>
<td>1.20</td>
</tr>
<tr>
<td>Work at a NGO</td>
<td>2</td>
<td>0.80</td>
</tr>
<tr>
<td>Work as an interpreter/translator</td>
<td>2</td>
<td>0.80</td>
</tr>
<tr>
<td>Have a welfare-related job</td>
<td>2</td>
<td>0.80</td>
</tr>
<tr>
<td>Others</td>
<td>6</td>
<td>2.40</td>
</tr>
</tbody>
</table>
The Japanese university students’ investment in English outside of classrooms

With regard to the Japanese university students’ investment in English, the researcher collected some qualitative data by Q2-2 on how they study English autonomously outside of classrooms. 215 of the students surveyed entered comments for the question, and these comments were separated into 318 semantic segments based on their content. The researcher found by coding these semantic segments that the respondents were using various means for their autonomous English learning, and that they prefer the means of “watching foreign movies” (n = 51, 16.04%) and “listening to Western music” (n = 50, 15.72%) much more than the others (see Table 3).

Quantitative data

The present researcher collected in this study quantitative data on the strength of the Japanese university students’ imagined communities and the extent of their investment in English inside and outside of the classroom.

The strength of the students’ imagined communities after graduation

The present researcher prepared two questions (Qs 4-1 and 3) to measure the strength of the Japanese university students’ imagined communities. Q 4-1 was designed to clarify the strength of their imagined communities after graduation in general. The mean score of the whole group (N = 248) was 3.50, and each grade of students’ mean scores were as follows (see Table 4). Though there was some difference among each grade of students’ scores, a Kruskal-Wallis Test revealed that the difference was not statistically significant.

Q3 was given to measure the strength of the Japanese university students’ imagined communities after graduation specifically related to English-using careers. The mean score of the whole sample was 4.14, and the mean scores for each grade of the students were 4.55 for freshmen, 4.22 for sophomores, 4.01 for juniors and 3.58 for seniors. While this is cross-sectional data, the result shows that the Japanese university students’ imagined communities which are specifically related to English-using careers weaken gradually over the four years (see Table 5). As opposed to the result of Q 4-1, a Kruskal-Wallis test revealed a statistically significant difference in the scores across the

<table>
<thead>
<tr>
<th>Types of semantic segments</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-related imagined communities envisaged vaguely (type of business is not mentioned):</td>
<td>53</td>
<td>21.29</td>
</tr>
<tr>
<td>Work as a salaried person/a company employee</td>
<td>17</td>
<td>6.83</td>
</tr>
<tr>
<td>Have an English-related job</td>
<td>12</td>
<td>4.82</td>
</tr>
<tr>
<td>Work as a salesperson/attendant</td>
<td>8</td>
<td>3.21</td>
</tr>
<tr>
<td>Have a job unrelated to English</td>
<td>5</td>
<td>2.01</td>
</tr>
<tr>
<td>Have a job in which I can be related to overseas</td>
<td>5</td>
<td>2.01</td>
</tr>
<tr>
<td>Work abroad</td>
<td>4</td>
<td>1.61</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>0.80</td>
</tr>
<tr>
<td>Academic imagined communities:</td>
<td>15</td>
<td>6.02</td>
</tr>
<tr>
<td>Study abroad</td>
<td>8</td>
<td>3.21</td>
</tr>
<tr>
<td>Study at a technical college</td>
<td>4</td>
<td>1.61</td>
</tr>
<tr>
<td>Study at a graduate school</td>
<td>3</td>
<td>1.20</td>
</tr>
<tr>
<td>No imagined communities clearly envisaged</td>
<td>36</td>
<td>14.46</td>
</tr>
<tr>
<td>Total</td>
<td>249</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Table 2. The Japanese university students’ imagined communities in 20 years (Result of Q5)

### Using English in twenty years

#### Living in Japan

**Using English at work**

Using English as an English teacher 30
Having a certain job requiring English 17
Using English as a hotel clerk 6
Using English as an interpreter 4
Teaching Japanese to foreigners in Japan 2
Using English as a librarian 2
Others 12

Using English as an English teacher 73 (31.06)
Having a certain job requiring English 77 (32.77)

**Running my own business**

Running my own shop, using English to order goods 2
Running my own business after working overseas, using English 1
Running a café, conversing with foreign customers 1

**Communicating in English with foreigners in my daily/private life**

Teaching English to my children 9
International marriage 3
Accepting international Ss, communicating in English with them 1

**Living abroad**

Working abroad (type of business is not mentioned) 11
Teaching Japanese in foreign countries 5
Being a popular musician in foreign countries 3
Others 8

Using English regularly in my daily/private life living overseas 5 (2.13)

**Living in Japan, but also being related to foreign countries**

Using English when traveling abroad privately 15 (6.38)
Work

Having a certain job related to foreign countries 2
Using English on business trips 2
Others 3

Not using English (so much) in twenty years

Mentioning their future, but not commenting on how they’ll be related to English

**Work**

Being employed

Working at a certain company 5
Working for an NGO 3
Working as a civil servant 3
Working easily as a part-timer 2
Working at a travel agency 2
Others 12

Running my own business

Running a bar 2
Running a certain business 1
Novelist 1

Having a happy family

Not using English regularly in my daily/private life living overseas 4 (1.70)

**Being hardly/never related to English**

**Work**

Having a certain job in which I never use English 7
Having a certain job in which I hardly use English 6

Not using English in my life

No images about my future 15 (6.38)
Others 11 (4.68)

Total 235 (100.00)
four grades of students $\chi^2(3, N = 248) = 7.89, p = 0.048$. The seniors recorded a lower median score ($Md = 3.50$) than the other three groups, and the freshmen recorded the highest median score (Freshman: $Md = 5.00$; Sophomore: $Md = 4.00$; Juniors: $Md = 4.00$). Specifically, a Mann-Whitney $U$ test revealed statistical significance in the freshmen’s ($Md = 5.00$, $n = 62$) and seniors’ score ($Md = 3.50$, $n = 40$), $U = 886, z = -2.48, p = 0.013, r = 0.26$. We can assume from this result and also from the result of Q5 mentioned the above that, ideally, many of the Japanese university students would like to engage in an English-related job. However, perhaps they start feeling over the four years that it would be hard to get such job in reality for some possible reasons including the lack of their English abilities, their unfamiliarity with English-using careers, and the difficulty of their accessing the information on English-related careers.
Table 5. The strength of the Japanese university students’ imagined communities after graduation specifically related to English-using careers (Result of Q3)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen (n = 62)</td>
<td>4.55</td>
</tr>
<tr>
<td>Sophomores (n = 79)</td>
<td>4.22</td>
</tr>
<tr>
<td>Juniors (n = 67)</td>
<td>4.01</td>
</tr>
<tr>
<td>Seniors (n = 40)</td>
<td>3.58</td>
</tr>
</tbody>
</table>

Mean of the whole sample (N = 248): 4.14

Correlation between the strength of the Japanese university students’ imagined communities and the extent of their investment in English

By utilizing the quantitative data collected in the survey, the researcher attempted to measure statistically the correlation between the strength of the Japanese university students’ imagined communities and the extent of their investment in English inside and outside the classroom.

After analyzing the results, he found that the strength of the Japanese university students’ imagined communities correlated more with the extent of their investment in English outside the classroom (their autonomous English learning) than with the extent of their investment inside the classroom (their class participation) (see Table 6). Based on the guideline suggested by Cohen (1988) for interpreting the value of the correlation coefficient, the correlation between the strength of the Japanese university students’ imagined communities and their class participation in the four types of English courses was either small or not statistically recognized. The correlation between the strength of the Japanese university students’ imagined communities and the extent of their autonomous English learning was larger. Especially, the correlation between the strength of their imagined communities related to English-using careers and the extent of their autonomous English learning was quite large (.510). While the related qualitative studies conducted in the past pointed out the strong impact of LLs’ imagined communities on their investment in their TL, the statistical data show that their impact on investment in TL inside and outside of classrooms is not quite the same.

This result implies the strong effect of language instructors on LLs’ investment in TL inside of classrooms, their class participation. This result was consistent with the case of Katarina, a Polish immigrant ESL student studying in Canada, introduced in a Norton’s study (2000a). This correlation test’s results imply that not only English instructors’ remarks but also their attitudes in class, teaching methodology they use, topics/subjects they treat, and class activities they provide could influence to a great extent the students’ class participation either actively or passively regardless of the strength of LLs’ imagined communities.

This result also reveals the strong influence of LLs’ imagined communities on their autonomous TL learning. This result was also consistent with the case of Rui (Kanno, 2000, 2003) introduced at the beginning of this paper. Though his strongly imagined Japanese community was quite distinct from the “real” Japan he actually saw after returning to the country, it motivated him highly to continue his pleasure reading in Japanese, consciously switching his thought from English to Japanese, and conversations with his family only in Japanese while he was living in...
Australia and Canada. The results of the present study and also Rui’s case imply that LLs’ investment in the TL outside of the classroom is directly influenced by the strength of their imagined communities even if those communities are inconsistent with their actual future or the relevant communities/societies in the real world.

**Pedagogical implications**

The findings of this study provide us with some pedagogical implications. First, the findings on LLs’ imagined communities and their investment in TL would be useful information to develop a TL curriculum which meets their real needs. For example, since many of the Japanese university students imagine living in Japan but using English at work, their English instructors can offer English conversation activities modeling such situations. In addition,
since many of the university students imagine working as an English teacher, a travel agent, a hotel clerk, or a civil servant after graduation, their English instructors can provide task-based English activities related to those careers in their classes. Furthermore, because many of the students tend to learn English through movies and music outside of classrooms, their English instructors can adopt these means to their class activities/assignments, or can teach how their students can utilize those media for their autonomous English learning.

Second, this study statistically found a strong correlation between the strength of LLs’ imagined communities specifically related to TL-using careers and their autonomous TL learning. Since autonomous learning is one of the significant factors in developing TL abilities, this result implies LLs’ need for more opportunities to strengthen/visualize their TL-related imagined communities, in addition to learning their TL itself. For instance, language instructors can occasionally give their students some chances to discuss the purposes for which they are learning the TL; what kinds of job they would like to get, and how much TL ability they would need to get such job; in what kinds of situations/settings in the work they pursue they would need to use the TL; or how they would be related to the TL in their future. Language instructors can provide such opportunities in their classes by sometimes inviting guest speakers who have actually engaged in TL-related careers.

This study’s findings and their pedagogical implications can be summarized in a chart as follows (Figure 1).

* Solid line: Relationships recognized in this study
* Dotted line: Relationships assumed to exist based on the data collected in this study also past related studies

**Figure 1. Summary of this study’s findings and their educational implications**

**Conclusion**

Unlike past studies on this topic, the present study quantitatively investigated LLs’ imagined communities, their investment in their TL, and the correlation between these two variables. While the data collected in the quantitative study may be temporal and partial, the researcher was able to collect fruitful information which is supplemental to the findings of previous studies. The present researcher hopes that the concept of imagined communities, one of the most influential factors in second/foreign language learning,
would be investigated further by more researchers from both qualitative and quantitative approaches.

**Yoshifumi Fukada** is an associate professor at Meisei University, Tokyo. He received his doctoral degree from University of San Francisco. His specialty is applied linguistics, and his current research interests include LLs’ motivation, imagined communities, TL social interactions outside of classrooms, and also early English education at home and English curriculum development in Japanese context. <fukayo2@hotmail.com>

**References**


Appendix 1

Questions related to the present study provided in the questionnaire

Questions on imagined communities:

Q3. To what extent would you like to get a job using your English abilities?

Not at all 1 2 3 4 5 6

Q4-1. To what extent do you visualize your future (job, school, etc.) after graduating from the university (1 year or 2 years after the graduation)?

Not at all 1 2 3 4 5 6

Q4-2. What kind of image do you actually have on your future after graduation?

Q5. Please imagine: About twenty years have passed after graduation, and you have become forty years old. You acquired various kinds of abilities including English abilities at a sufficient level. What kind of job do you think you would have at that time? In what situations or settings, do you think you would be using your English abilities? Please describe the image you have in detail.

Questions on investment in English inside of classrooms:

Q8-1. To what extent have you been able to participate in the classes of English

Not at all 1 2 3 4 5 6

Q12-1. To what extent did you participate in the classes of English communication course b (reading / writing)?

Not at all 1 2 3 4 5 6

Q16-1. To what extent have you been able to participate in the classes of English communication course c (learner autonomy)?

Not at all 1 2 3 4 5 6

Q20-1. To what extent have you been able to participate in the classes of English communication course d (global issues / English discussion)?

Not at all 1 2 3 4 5 6
Questions on investment in English outside of classrooms:

Q2-1. Currently, to what extent are you striving to improve your English abilities other than taking classes?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
</tbody>
</table>

Q2-2. What kinds of effort are you actually making?