Development of a Web-based Learning System for Writing Honorific Forms in Japanese

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Honorific Forms in Japanese

- **The honorific form**
  - a formal Japanese writing style for showing respect to others.

- **For Japanese social communication, particularly in business settings, speaking and writing in the honorific form is often required.**

- **Most Japanese have difficulty with communication using the honorific form.**
  - This fact has been summarized in the annual survey report regarding Japanese language issues, which was conducted by the Japanese Agency of Cultural Affairs (2007).
  - In the survey, 67.6% of respondents experienced some difficulty with the use of honorific forms, and 78.4% of respondents pointed out the particular difficulty of using honorific forms in certain situations requiring verbal communication.
Learning support

- **Some grammar books for honorific forms**
  - Published and referred well (Ogata 2007, NIHONGO KENTEI IINKAI 2007)

- **Technology-based learning systems**
  - Some have been developed, and its effectiveness has already been examined for the purpose of overcoming this.

- **The problem still has still not been fully resolved yet, however. This suggests that the simplicity and portability of these systems is not yet sufficiently evolved.**
  - In Japan, most people have cell phones, which are often used to access a wide variety of information anytime, anywhere.
  - The design policy for a learning system which works in this environment has not been established yet.
  - **The verb conjugation of honorific forms** is the most difficult task of all.
Task and Purpose

• It is not easy to recognize each situation because the speaker will usually be involved in a variety of conversational situations. Therefore, a support system which indicates the situational relationship between the speaker and the listener may be a useful tool.

• The procedure for developing a support system to write honorific verb forms needs to be worked out using learners' characteristics from an assessment experiment.

• A prototype of a support system for writing honorific forms was developed in response to the results of a needs assessment survey.

• Using the results garnered from this study, learning performance and its interaction with learners’ characteristics was examined.
Supporting Tool Design

• **Survey of learner’s situation**
  – To test the degree of understanding of respectful and modest verb forms, 8 university students were participated.
  – Mean percentage correct was 50.5%, this showed the insufficiency.

• **Four types of errors need correcting**
  – Type I: Selecting unusual or incorrect verb forms.
  – Type II: Presenting duplicated honorific forms.
  – Type III: Confusing respective and modest forms.
  – Type IV: Failing to choose a correct active verb form while a third party individual is doing something or is active in some way.

• **The problems**
  – Type I-III: resolved when people have the correct information.
  – Type IV: study and practice are needed.
A screenshot of the system interface

- A prototype was created as a web page with JAVA programs.
Typical human relationships amongst three persons:

1. Speaker
2. Person spoken to
3. A third party individual
Four Relationship Situations

• **Situation A:**
  – The person spoken to recognizes that both the speaker and a 3PI (third party individual) belong to a like group of people who are familiar with each other. All persons belong to the same group and the 3PI is closer to the speaker.

• **Situation B:**
  – All persons belong to a like group when the order of their positions is as follows:
    • speaker < a third party individual < person spoken to,
    • or the position of the third party individual is higher than the position of the speaker.

• **Situation C:**
  – The speaker is closer to a third party individual except in situations such as the above.

• **Situation D:**
  – The third party individual is not specified.
Experimental Procedure

- **Subjects**: 10 Univ. students.
- **Pre-test**:
  - To observe their readiness, a paper and pencil test was conducted using 15 questions about honorific forms without revealing the correct answers.
  - They can use an electronic JPN dictionary.
- **Learning honorific expression forms**
  - Learn explanations of examples which were the same as in the pre-test, such as the structure of expressions of type A to D.
- **Post-test**:
  - Asked to complete the expressions using the new tools. The post-test questions were identical to those of the pre-test.
- **System assessment**
System Assessment

• Using a 5-point scale of the degree of satisfaction to answer three questions.

1. This system seems to be a better tool than a conventional dictionary.
2. I have confidence in the use of honorific forms of expression.
3. This system is easy to use (usability).
Results: Learning Performance

• **Mean correct scores for 15 questions.**
  – Pre-test: 8.6
  – Post-test: 12.3
    • Only 2 of them could complete all of the questions.
    • The questions are not easy for the subjects, though all are commonly used expressions.

• **Questions issue:**
  – As the questions in both the pre-test and the post-test are identical, the score of the post-test are naturally higher than those of the pre-test.
Scatter gram of scores between pre- and post-tests

- The standardized learning performance:
  - A difference between the post-test score and the estimated regression score.
  - The mean of the standardized score is 0.

\[
\text{post-test} = 0.38 \times \text{pre-test} + 9.00
\]
Comparison of performance scores 1

• between two groups of Q1 responses
  – Q1: This system seems to be a better tool than a conventional dictionary.
    When the learner positively evaluates this system, the performance score is high.
    However, when the learner does not evaluate this system positively, the performance is low.
Comparison in performance scores 2

- between two groups of learner’s readiness
  - Scores of pre-tests: high and low
  - A learner’s readiness may not affect the performance.

\[ \text{Performance score} \]

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-low</th>
<th>Pre-high</th>
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<tbody>
<tr>
<td>Score</td>
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<td>-0.30</td>
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n.s.
Comparison of performance scores 3
• between two groups of learner’s confidence of usage of honorific forms, Q2: high and low.
  – Q2: I have confidence in the use of honorific forms.
  – Again, learner’s readiness does not affect performance.
Comparison of usability assessment 1
• between groups of high and low preference learners

Q1: high and low
- Q1: This system seems to be a better tool than a conventional dictionary.
- Q3: This system is easy to use.
Comparison of usability assessment 2

- Between high and low, Pre-test and confidence
  - Learner’s pre-test scores and their confidence did not affect usability scores.

### Pre-test

<table>
<thead>
<tr>
<th>Group</th>
<th>Usability score</th>
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<td>Pre-low</td>
<td>3.6</td>
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<tr>
<td>Pre-high</td>
<td>3.6</td>
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</table>

### Confidence

<table>
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<tr>
<td>Q2-high</td>
<td>3.8</td>
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</tbody>
</table>
Discussion

• **The effectiveness of this system**
  – Learners who preferred to use this system rated the usability of the system positively, and their learning performance was also significant.
  – Learning performance for Type IV is significant, as this system has been developed mainly for learning Type IV topics.

• **Usability assessment**
  – Both learning performance and usability assessment are low when learners do not evaluate the usability.
  – In order to maximize the performance of this learning system, learner need to understand the parameters of the system when they use it.
  – If users do not have enough grammatical knowledge, the system will not be effective.

• **Individual factors have to be considered to design a learning support system.**
Conclusions

- A learning and support methodology for the use of difficult honorific forms verb where “a third party individual” is concerned.
- The effectiveness of the system and the relationship between learning performance and subject’s preference for use of the system are examined.
  - A proper understanding of the functions of this system is required in advance, such as the appropriate parameters and the human relationship where is the honorific form of expression is used.
Feature study

- The improvement of this system and further development of the support instructional procedures.
- Implementation with cell phones of a learning support system of this kind.
- A determination of the effectiveness of this kind of system for use in business settings.
Thank you very much for Your kind attention!!