LANDMARK PROJECT – Annual Report

Project number: I004
Project title: A cross-language investigation of phonological development: English, Greek, Japanese, Cantonese, Korean, Mandarin Chinese, and Taiwanese
Submitting organization: Department of Foreign Languages & Literature
Period covered: From 98/08/01 to 99/7/31
Grant amount: NT$ 907,840
Grant utilized: NT$ 907,840
Date of report: 99/8/15
Principal investigator and Co-PI's names, titles and organizations:

PI: Li-mei Chen  Associate Professor  National Cheng Kung University
Co-PI: Jan Edwards  Professor  University of Wisconsin-Madison, USA
        Mary Beckman  Professor  Ohio State University, USA
1. Itemized goals of the project:

1. Conducting this cross-language study will provide a valuable opportunity to incorporate Taiwanese data into a milestone study.
2. The cross-linguistic project is conducted with the aim of providing assistance in the therapy of articulation disorder in children.

2. Achieved "Landmark" accomplishments directly related to this project and how it is compared to the state-of-the-art (no more than 750 words in total):

1. Conducting this cross-language study will provide an opportunity to incorporate Taiwanese data into a milestone study.
2. In this international collaborative study, the researchers will have the chance to intensively and substantially interact with scholars from many different countries (currently the United States, Canada, Greece, France, Japan, Korea, Hong Kong, and Mainland China) in teamwork.

3. Which items stated above are the best in the world, Asia, or Taiwan?

1. The various developmental aspects of phonological acquisition in typical, developing children found in this cross-linguistic study will provide a substantial reference for establishing developmental normality and for developing criteria to assess articulation disorders in various linguistic environments.
2. The study findings will provide a crucial foundation for establishing reasonable diagnoses of articulation disorders, practical therapy plans, and practical expectations for therapy outcomes among children in different linguistic environments, including Taiwanese-learning children.

4. Extramural funding currently active, applied or to be applied for supporting the work or related subjects stated above.

5. Utilization of grant for this year: (Units: Thousand NT Dollars; %)

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount Spent</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>547,200</td>
<td>100</td>
</tr>
<tr>
<td>Consumables</td>
<td>26,554</td>
<td>100</td>
</tr>
<tr>
<td>Equipment</td>
<td>228,000</td>
<td>100</td>
</tr>
<tr>
<td>Travel Expenses for International Destinations</td>
<td>106,086</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>907,840</td>
<td>100</td>
</tr>
</tbody>
</table>

6. List names of faculty and researchers funded by this project and amount of support.
Li-mei Chen   NT$ 907,840
7. Publications by faculty and researchers list above based on work supported by this grant (indicate impact factor, journal ranking and citation number):

8. List of invited presentations by faculty and researchers shown in item 6:

9. List all currently funded contracts and grants for PI and each faculty and researchers funded by the project shown in item 8.
   PI: NSC general research project (Development of vowel production: a longitudinal study 2003-2012)
   Co-PI:
   - National Institute of Deafness and Communication Disorders NIDCD Grant 02932 (A cross-linguistic investigation of phonological development)
   - NSF Grant project BCS-0729306, BCS-0729140, & BCS-0729277 (Dynamics of Human Behavior/Collaborative Research: Using machine learning to model the interplay of production dynamics and perception dynamics in phonological acquisition)

10. Appendices (reprints of most important recent papers related to this project published by PI & Co-PIs)