# What Code-Switching Strategies are Effective in Dialogue Systems?

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Supplementary Material for
What Code-Switching Strategies are Effective in Dialogue Systems?

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1 Crowdsourcing Information

We presented most information and instructions in Spanish to the crowdworkers. The preliminary instructions encouraged users to “use English, Spanish, or a mixture of the two”. The title of the crowdsourced task was also called “Charlemos en Spanglish!”, meaning “Let’s chat in Spanglish!” Our modified bilingual interface is shown in Figure 1.

Figure 1: Crowdsourced users would see an interface similar to this when chatting with our dialogue system via text. Unique features include the bilingual table of friend attributes.

2 Post-Task Survey Questions

After chatting with our agent, the user would fill out this post-task survey, given in English.

∗This work was done while the first author was a student at Carnegie Mellon University.

Part 1: This Task
1. I understood the task perfectly.
2. My task partner was very cooperative.
3. My task partner was very human-like.
4. My task partner perfectly understood what I was typing.
5. I am very likely to chat like I did in this task when messaging with my bilingual friends.
6. My task partner texts like someone I know.
7. If technology (like Siri or Alexa) progressed to allow me to use Spanglish, I could see myself using both languages with it.

Part 2: Linguistic Background
1. At what age did you begin to learn Spanish?
2. At what age did you begin to learn English?
3. What is your current age?
4. What is your gender?
5. Rate your overall Spanish ability on a scale from 1-5
6. Rate your overall English ability on a scale from 1-5
7. Which country/countries do you or your family originate from?
8. What percentage of the time do you write online (i.e. text, social media, etc.) in Spanish?
9. What percentage of the time do you write online (i.e. text, social media, etc.) in English?
10. What percentage of the time do you write online (i.e. text, social media, etc.) in mixed Spanish and English?

3 List of Discourse Markers for the Casual Formality Setting
1. ah
2. ay
3. *este*
4. *hey*
5. *nah*
6. *oh*
7. *ok*
8. *oye*
9. *pues*
10. *so*
11. *yeah*
12. *.. y tú?*