Are you using Likert-type scales correctly? A study of effects of category labelling on scores

Tadamitsu Kamimoto
Kumamoto Gakuen University, Japan

Likert-type scales are a common research tool to measure students’ beliefs, attitudes, and opinions in L2 qualitative surveys. A typical example consists of statements with several categories (e.g., 1 = strongly agree, 2 = agree, 3 = undecided, 4 = disagree, 5 = strongly disagree). In the instructions for a survey, an explanation of the category is usually displayed along with its corresponding number, as shown above, whereas within the survey itself the categories of the survey items are indicated only by numbers – usually as a space-saving measure. Researchers appear to assume that respondents choose the same rating whether the categories are indicated in words or by numbers. However, little research has been done to study the possible effects of category labelling on scores. As an attempt to examine if this tacit assumption proves sustainable, the present study was carried out.

A confidence rating was used for data elicitation. Two formats were prepared with categories indicated by either numbers or words. Participants were instructed to express how confident they were in their answers on a 4-point scale ranging from 1 (“no confidence at all”) to 4 (“complete confidence”) in a vocabulary size test (Nation & Beglar, 2007). Results showed that there was no statistical difference in raw scores between the two groups. When frequency counts of confidence ratings were examined, however, the ”number” group showed an inclination to assess their confidence level higher across the word frequency levels than the ”word” group did. Further analysis indicated that difference in respondents’ vocabulary size could be ruled out as a contributing factor. If this result can be generalized, category labelling may prove more significant than it appears, suggesting that survey item responses described only in numbers may yield somewhat inflated results compared to those described in words.

Keywords: research tool, category labelling, qualitative survey, confidence rating, Likert scale.