Diversity and Similarities among Instructors Who Use MacGAMUT

The following is a brief summary from Sheila Clagg Cathey of her 2014 dissertation entitled, *Profiles, Perceptions, and Practices Related to Customizable Computer-Aided Instruction (MacGAMUT) among Postsecondary Aural-Training Instructors.* A longer, more detailed article is intended for journal submission. The entire dissertation will be available through the Boston University Library, and ProQuest Dissertations and Theses.

Introduction

This study examined relationships between demographic and educational characteristics of postsecondary aural skills instructors and their practices using aural-training CAI. In order to examine relationships, a representative application and target group were selected. I selected MacGAMUT as a representative aural-training application; and for the target group, I selected postsecondary instructors who use MacGAMUT. Reasons for selecting MacGAMUT over other CAI are detailed in the dissertation. In brief, MacGAMUT is a flexible drill-and-practice, mastery-based application that encourages instructors' hands-on involvement and emphasizes typical components of postsecondary dictation skills.

After selecting the target group, I created a 31-item, pilot-tested questionnaire. Dr. Ann Blombach forwarded a survey link in March 2011 to all instructors in her database. Potential participants were limited to Ann's confidential database of instructors who have registered their MacGAMUT software and have deliverable email addresses (N = 1,717). All instructors were invited to participate. The survey closed on May 6, 2011 with 331 anonymous respondents; 53 pre-college instructors were eliminated from the results, leaving a final sample of 278 anonymous postsecondary respondents. Two MANOVAs were used to analyze whether respondents differed on eight dependent variables. All inferential statistics are found in the dissertation.

Instructors' Profiles

Profile data are useful in describing demographic and educational characteristics of faculty. In the aural-training literature, little research has been conducted that accounts for profile data. For this study, profile items were used to determine specific characteristics such as age, gender, primary area of teaching responsibility,

educational backgrounds, years of experience in teaching aural skills, primary instrument, CAI experience with other applications, years of experience in using MacGAMUT, position or rank, and the type of institution where instructors use CAI (MacGAMUT). The following will summarize key characteristics of the respondents.

Although I am unaware of any anonymous instructors' names, MacGAMUT is used at institutions in 22 countries.[1] Like the diversity found among numerous locales where MacGAMUT is used, the respondents in this survey also represented a diverse group. Profiles revealed that the respondents were diverse in age, rank, and years of teaching experience, with a fairly balanced number of males and females. Overall, these instructors are well-educated with the majority having doctorates (59.85%), which is significantly higher ($p = .05$) than the percentage (45.04%) of music theory/aural skills instructors in the 2011 College Music Society (CMS) Directory. Associate professors and professors were the most frequently-identified ranks, suggesting the inclusion of veteran instructors. The most frequent respondents were ages 30 to 34 years old, but the ages ranged from 22-year-old graduate assistants to a 77-year-old professor emeritus, implying that MacGAMUT is used among all career age groups (mean = 43.8). Instructors' teaching experience and years of experience in using MacGAMUT also varied widely, with an average of almost 11 years of teaching experience, and nearly 5 years of experience in using MacGAMUT.

Instructors' Practices

Survey questions related to instructors' practices focused on current use of MacGAMUT; importance of MacGAMUT's modes; how assignments are made, required, and impact overall grade; ways MacGAMUT is customized to fit pedagogical needs; and most frequently-used textbooks coordinated with MacGAMUT. For the purpose of this Newsletter, I will summarize a few of the key ways that instructors use MacGAMUT. This narrative will be limited to basic uses of Presets, Libraries, Set Params, and

[1] MacGAMUT is used at institutions in Australia, Belgium, Brazil, Canada, China, Finland, France, Israel, Italy, Korea, Mexico, Nepal, Netherlands, New Zealand, Norway, Philippines, Slovenia, Sweden, Taiwan, Turkey, United Kingdom, and the United States (Blombach, 2010).

checking students' statistics. It will conclude with the importance of longevity in using MacGAMUT.

Although it is unknown which versions of MacGAMUT respondents were using, MacGAMUT 6.1 was the latest version available at the time of the survey. MacGAMUT 6.1 comes with the Original Presets and Libraries pre-loaded as the default settings. Presets included on the MacGAMUT 6.1 Instructor Disk are: *Original Presets MG6.mgp, Much Easier Presets MG6.mgp, Much Harder Presets MG6.mgp,* and *Prep Presets MG6.mgp.* Overall, instructors make MacGAMUT's Presets easier rather than harder. MacGAMUT also contains Presets and Libraries for three textbooks: Phillips, Clendinning, and Marvin's (2005) *The Musician's Guide*; Kostka and Payne's (2009) *Tonal Harmony*; and Damschroder's (2005) *Listen and Sing*, which was added in 2013. Although instructors have several library files from which to choose, a strong majority of the respondents use MacGAMUT's Original Presets and Libraries. The next most frequent responses were "my own libraries," MacGAMUT's Prep Presets and Libraries, and "libraries common to my department."

Instructors can modify any of the parameter or level settings in a presets file using a program in MacGAMUT, called Set Params. While there are many ways to change default settings, the most common are: (1) increasing the number of hearings before the first answer check, (2) allowing students to choose any tempo, (3) choice of levels that students are required to complete, and (4) order of levels that students are required to complete. Overall, 75.58% do not create new levels, while only 24.42% create new levels in any component. Because most respondents do not create new levels in MacGAMUT, this implies satisfaction with the already designed levels.

MacGAMUT and its predecessor—GAMUT—have always had extensive student statistics, flexibility for instructor usage, flexibility for student usage (practice, review, help), mastery-based learning for aural training, and intelligent response judging and question preparation (Blombach, 1980, 1986; Blombach & Murphy, 1981a). Checking students' statistics is still one of the most important features to instructors. In fact, survey respondents indicated that checking students' statistics on a regular basis is their top pedagogical practice with MacGAMUT.

I will briefly address how experienced MacGAMUT users

have advantages over less experienced users. Instructors who had used MacGAMUT for four or more years were significantly higher ($p = .05$) than instructors who had used MacGAMUT for zero to three years in their perceptions that CAI, customization, and instructors' interactions with MacGAMUT have a positive impact on students learning dictation. Experienced MacGAMUT users were also significantly higher in the importance of using MacGAMUT's Mastery Mode, and how often students submit MacGAMUT assignments. This implies that experienced users trust MacGAMUT's ability to provide students with a personal tutor that can facilitate the acquisition of dictation skills.

Most instructors require students to submit assignments using MacGAMUT's Mastery Mode on a regular basis. Required use of Mastery Mode and regularly requiring MacGAMUT submissions imply strictness in practice and confidence in the software's ability to meet dictation needs. Although mastery-based CAI can ignite frustration or resentment among students, a review of the literature consistently indicated that students who use mastery-based CAI make significant improvements in dictation skills. Furthermore, longevity of using MacGAMUT also produces seasoned CAI users who maximize the benefits of customizable software in a meaningful way to aid students in the progressive stages of acquiring aural skills. In sum, longevity of using MacGAMUT increases instructors' interactions and involvement with MacGAMUT, and the perceived value of MacGAMUT.

In Closing

I again want to thank the anonymous pilot group and anonymous respondents. Thank you for your voluntary time and effort in answering questions in great detail. This project focusing on the MacGAMUT community would not have been possible without the gracious support of Dr. Ann Blombach. Ann's consent for me to conduct this critical examination is representative of her desire for future researchers to be knowledgeable of postsecondary instructors' perceptions and practices as they relate to the uses of CAI. Ann, I thank you for granting me permission to conduct a study that would entail a close examination of the personal ways that instructors use MacGAMUT. May God bless you.