IPRO 343

Improving Communication Quality of the Drive-Thru Experience

Statement of the Problem

- In the quick-service restaurant (QSR) industry, a 2007 QSR Consumer Drive-Thru Preference Survey found that "speaker communication" was ranked as "important" by a significant proportion of those surveyed.

- "Communications via speaker" received a satisfaction rate from only about a third of the consumers surveyed.

- Thus, in the area of communication, a gap exists between consumer ratings of importance and satisfaction, indicating a critical need (by industry standards) for improvement.
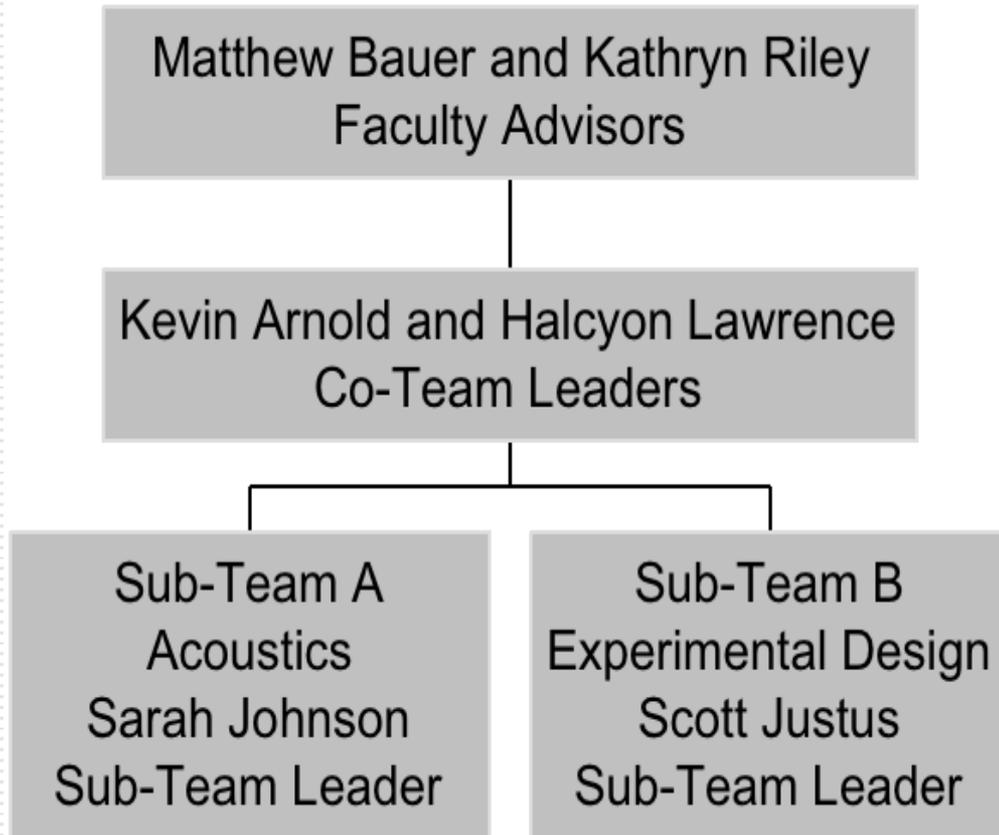
Goals and Objectives of the Project

- The primary objective of IPRO 343 is to identify the communication issues which affect the efficiency and effectiveness of the drive-thru experience at fast food restaurants. The team will also:

  - examine factors relating to acoustics that influence the drive-thru experience, and will look for potential areas in which the drive-thru experience can be improved.

  - develop and conduct experiments related to these factors, to test pre-established hypotheses.

Goals and Objectives of the Project

- establish a baseline for intercultural issues in quick service restaurant communication by including a subject group of non-native English speakers in the experimental design.

- make recommendations about possible solutions or further studies which may need to be conducted.

Team Organization

Matthew Bauer and Kathryn Riley
Faculty Advisors

Kevin Arnold and Halcyon Lawrence
Co-Team Leaders

Sub-Team A
Acoustics
Sarah Johnson
Sub-Team Leader

Sub-Team B
Experimental Design
Scott Justus
Sub-Team Leader

Team A Members: Shavanna Pinder, Halcyon Lawrence, Russell Ucci, Susan Mallgrave, **Scott Justus (leader)**

Team B Members: Shaun Doran, Kevin Arnold, Matthew Campen, Karen Hong, **Sarah Johnson (leader)**

Team Responsibilities

Team A

- Babble and Stimulus recordings (Due 10/23)
- White Noise Creation (Due 10/9)
- Equipment Procurement (Ongoing until experiment start, 10/27)

Team B

- Stimulus Script (10/9)
- Intelligibility test (10/23)
- Software Interface (10/23)
- Data compilation process (10/27)

2x2 Experimental Design

	No Noise	White Noise	
Low Babble	20 Native Listeners	20 Native Listeners	
High Babble	20 Native Listeners	20 Native Listeners	20 Non-Native Listeners

Progress Made

- ☐ Researched background information necessary for experiment
- ☐ Designed experiment, submitted ethics report to IRB
- ☐ Developed clear hypotheses and research method
- ☐ Began design of experiment interface
- ☐ Finalized subject recruitment plan

Obstacles So Far

- ☐ Lack of background information in linguistics amongst team members
- ☐ Initial project scope too wide—needed to narrow problem
- ☐ Difficulty for team members to shift from a consumer's perspective to employee's perspective regarding drive-thru environment

Potential Concerns

- ☐ Software interface learning curve
- ☐ Recruitment (100 participants needed)
- ☐ Time constraints
- ☐ Intelligibility test (must be well-crafted to yield useful data)

Questions?