Quicker to Quality: Technology-Enabled Content Review with i-SFT

Lisa O’Leary, Ph.D., Alpine Testing Solutions
Laura Brooks, PMP, ICE-CCP, Alpine Testing Solutions
Alpine is your partner to help you…

• Capitalize on technology to enhance the exam development process
• Decrease time-to-market for new exams and exam refreshes
• Reduce SME (subject matter expert) time commitments while increasing the efficacy of their efforts
• Increase validity evidence for your exams
Alpine’s Technology-Enabled Smart Solutions

• Intelligent End-to-End Solutions
  • Better, faster, and more cost-effective exam development philosophy
  • Incorporates the latest technological advances without sacrificing psychometric quality
  • Automates Alpine’s high-quality psychometric workflows
  • Supports asynchronous and synchronous remote and in-person test design, blueprint and item development, exam publication, and maintenance
i-SFT (*eye-sift*): Item Screening and Feedback Tool

• Generates better items faster, more efficiently, and with increased consistency
• Automatically generates customized feedback on exam items
• Incorporates Alpine’s psychometric standards and exam development best practices
• Allows for application of custom requirements, including branding and style preferences
Example 1

Is it okay to cook food in the oven while it is pre-heating? Why or why not?

A. Yes, it will decrease total cooking time
B. Yes, food will cook more thoroughly
C. No, food may get overcooked*
D. No, it will increase the total cooking time.

i-SFT Feedback

- Revise to avoid yes/no question.
- Revise the stem to avoid negative terms like “NOT”.
- Revise to remove "Why or why not" in the stem.
Example 2

When might it be appropriate to use a sousvide cooking method?
A. Need to use high direct heat to cook food quickly
B. Need to use dry heat where hot air envelops the food
C. Need to use water to cook food at an extremely accurate temperature
D. Need to use high pressure to cook food evenly

i-SFT Feedback

- Revise to remove subjective language.
- Move repetitive language in options to stem (or remove).
- Grammar/Spelling: misspelled word in stem (“sousvide“)
Example 3

A chef must cook three main course dishes for a single event: prime rib, chicken marsala, and trout almandine. She needs to ensure the chicken and trout don’t overcook, and the prime rib needs to be kept at medium rare. What should she do?

A. Create a cooking timeline
B. Set a mise en place
C. Start the prime rib in the sous vide first, then 2 hours later start the chicken marsala in the oven, and cook the trout on the stovetop last
D. None of the above

i-SFT Feedback

• Review the stem for the pronoun “she” and replace with a role title.
• Revise to remove “none of the above” in the options.
• Revise to make sure all options are similar in length.
Advanced Reporting Options via i-SFT

- Formative Item Feedback and Progress Report
- Item Productivity Summary Statistics Report
- SME Productivity Summary Statistics Report
Formative Item Feedback and Progress Report

- Item-level feedback for each SME along with associated item screening, psychometric review, and grammar flags, productivity information, and item writing assignment gap analyses
- Summary statistics highlighting progress towards development goals and common issues across the SME panel
Item Productivity Summary Statistics Report

- Summative report of item writing efficacy
- Provides insight into overall development effort efficiency and output quality, as well as document areas for additional focused item writing training
SME Productivity Summary Statistics Report

• Summative report containing individualized subject matter expert (SME) feedback

• Provides personalized insight into SME-specific development effort efficiency and output quality, as well as document areas for additional focused item writing training and/or provide recommendations for future involvement.
Other Technology-Enabled Efforts in Development

- Using AI and advanced NLP (natural language processing) models to generate domain analysis documentation
- Employing content domain-specific NLP models to generate items (templates, stems, and options, distractors)
- Many others!
We are committed to helping our clients do more with less—

• Using technological advancements responsibly to reduce SME time
• Optimizing synchronous and asynchronous item development with groundbreaking tools
• Challenging the paradigm of “traditional” exam development to build even stronger validity arguments
Questions? Feedback? Input?