Progress Report
XYZ Company Preview Results
By Tony Ingle

This is the first report in the XYZ Company training evaluation project being conducted by Wade Carter of the College of Textiles at North Carolina State University and Tony Ingle, an independent consultant and graduate of the College of Textiles. The training class chosen for the first assessment is the “Spun Yarn Manufacturing Program.”

As outlined in previous documents, the assessment program will consist of a Preview exam which pre-tests participants to gauge initial knowledge of the subject matter; a Review exam given immediately after the training to gauge the accumulation of knowledge; and a Follow-up given in two to six months to gauge long-term knowledge retention.

Each exam is designed to explore two areas of interest—the participants’ knowledge of short staple spinning, and the participants’ attitude about the learning experience. Knowledge refers to facts and how they are remembered. Attitude refers to how participants view the training experience, and how likely they will be to put the knowledge into action at the work site. In looking at our initial data from the Preview exam, we will first analyze the participants demographics before turning to the knowledge and attitude portions of the Preview test.

Demographics and Knowledge Scores

The first 5 questions of the exam involved basic personal data and demographics. The participants came from a wide variety of backgrounds within the plant ranging from drawing, spinning, and carding, to front office staff. In addition, the assembled class of 42 participants represented 117 years of collected experience at XYZ Company (averaging 2.8 years each), and 66 years of collected experience in their current positions (averaging 1.6 years each). A couple of participants had also worked 20 and 30 years respectively with other textile firms. Collectively, this represents a true wealth of experience.

However, there was no significant difference in average test scores between new and older XYZ employees. The average test score for the 18 people who had been at XYZ for 3 to 10 years was “28.” The average test score for the 24 people who had been at XYZ for less than 3 years was “24.” This is at least partially explained by the fact that XYZ has attracted a handful of experienced associates from other textile mills. However, one could also safely conclude that the class’ work experience on the whole had limited impact on its ability to succeed with the Preview material.

As mentioned above, a total of 42 people took the Preview test; 28 voluntarily and 14 who reported that they were required to take the class. There were a total of 40 “knowledge” or content questions. The average score for the exam was “26” (see Table 1 below). This score, though low, is to be expected since the material is new for most participants. Neither the volunteers nor those required to take the training performed significantly better on the Preview.
The questions giving the most difficulty were numbers 2 (cotton variables), 5 (opening), 7 (ends down causes), 8 (carding objectives), 12-16 (sliver, blending, drawing), 18-20 (drawing), 24-32 (OE spinning, yarn problem), 37 and 39 (true false). These questions in particular should receive special attention during the remaining class.

![Graph showing average score]

If we look at the scores attained by the class for each individual question, we find that there were 23 of the 40 questions on which 10 or fewer participants got the correct answer. For 33 of the questions, less than half the class managed to get the correct response (see Table below). Besides serving as ample justification for the training, this also represents a significant learning opportunity.

![Graph showing percentage of correct answers]

Table 2: Correct Preview Answers Distribution

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When we administer the Review, we will look to see how much improvement there is for individuals and on each question.

**Attitude Questions**

The main questions regarding the attitudes towards training included a question about whether or not the participant expected this training to help them do their job better. An overwhelming 36 said “Yes” while only 6 were “Uncertain.” No one said “No.” When asked if they expected that this training would help the firm save money, 30 said “Yes” while 11 were “Uncertain.” Interestingly, the majority of those who felt uncertain had been with the firm for more than 4 years and had volunteered to attend the class. There is certainly an opportunity to demonstrate the power of this training class to save money for the company. It seems that some of the veterans need to learn this lesson.

A final attitude question asked if the participants expected this training to improve their career development. Thirty-four said “Yes,” 6 were “Uncertain,” and 2 said “No.” Interestingly, both of those who said “No” had volunteered to come to the class, making one wonder if their goal might have been to take some time off from work.

In general, people who were uncertain about one question were uncertain about others as well. Those required to take the course also seemed a bit more uncertain. The opportunity here is in demonstrating how the knowledge to be provided can be used on job to impact both career development and company performance.

**Conclusions**

With an average test score of 26, there is a large opportunity to improve the class' understanding of short staple spinning. We have found that work experience will not likely provide the knowledge delivered by the class, as new employees scored roughly the same on the Preview as their more experienced counterparts. Therefore, there is a great potential for improving the performance of the firm and the advancement of the participants in their careers.

The attitudes expressed by participants were almost unilaterally positive. It will be interesting to see if they can improve even more by the end of the course. Attitudes, which are already good, will go a long way in impacting the bottom line of the organization as they carry participants back into the workplace. However, no real conclusions will be made about training effectiveness until the Review and Follow-up have been administered. At that time, we can begin determining the training's organizational impact.