CORE COMPETENCY FOCUS GROUP ORGANIZATION

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The purpose of the core competency focus group is to get input from industrial representatives regarding competencies needed by technicians working in a specific industry. Our first set of groups looked broadly at materials technology, focusing on metals, ceramics, plastics and composites. Most of the respondents and responses dealt with structural materials, with some input on electronic materials. We held focus groups in 4 areas of the country with principal industrial emphasis on aerospace and automotive applications. As may be noted in the initial Core Competency Report, many of the competencies are general ones that can apply to technicians in any applications area. This report is available under Core Competencies at www.materialseducation.org.

MatEd plans to expand this survey to include more specialized and newer materials applications areas. The recommended process for this expanded study is outlined below. A more comprehensive study on focus group organization may be found under the Core Competencies section of the above website.

The process of setting up a core competency study is as follows, based on our experience:

1. The specific area(s) of interest need to be identified and companies working in this area need to be located. It is important that contacts be available in these companies who can help identify the technology leaders (engineers and lead technicians) who can identify specifics regarding knowledge that technicians need to know to better perform on their job in this industry or area.
2. A pilot set of potential competencies performance indicators related to the area or industry in question needs to be developed. Each competency should be a performance-driven action activity. Competencies can be divided into competency areas for convenience, but each must relate to an actual activity, with appropriate action verbs incorporated (e.g. show, describe, analyze, plan, perform). Developing the set of competency indicators must be a team effort between the leaders of the effort and the contacts in industry noted above.
3. A pilot test of the initial set of competency performance indicators should be completed first using professionals in the areas of interest. Feedback from this initial test should be used to improve the selection of performance indictors listed. This list is then incorporated into a comprehensive competency questionnaire, either as new concentration areas or in some cases as additions or modifications to existing performance indicators.

4. Rating of the performance indicators is the primary task. This can be done using face-to-face focus groups or using communications technology with a wider group, such as a video- or computer-based conference with computer-based feedback from the participants. In either case, the actual rating can be most easily performed using a 'survey monkey' process, where each rater enters his/her input by computer.
5. Whether face-to-face or a wider group, the following sequence of events is recommended:
   a. Welcome and orientation (10 min)
   b. Introduction to the process, perhaps a short PowerPoint presentation, about 10 minutes.
   c. Discussion on core competencies and what they mean in the industry in question, 30 min.
   d. Participants rate the competencies on the initial list and add competencies that they feel should be added, about 90 min.
   e. Additional time should then be allowed for discussion. While results will not be specifically available, a general discussion will help pinpoint any problem areas.
6. The leader and/or facilitator collates the data to create an overall compilation. This raw data should be fed back to all participants for further comment or suggestions, and to allow each participant to rate any additional competencies added in the process.
7. The result of the group meeting and survey provides a comprehensive evaluation of competency performance indicators. Once all data is in, a report should be written focused on the new competencies, circulated to all participants and to other interested parties.
8. Notes regarding face-to-face focus group meetings:
   - The venue for each focus group needs then to be identified and a listing of potential participants needs to be identified for each focus group.
   - The target for each group should be 10 to 12 participants per group. To reach this number, 15 to 20 names should be identified for invitations.
   - A telephone poll to determine the best date and time is advisable. Then, written invitations should be issued, preferably several weeks ahead of time. Each invitee should also be followed up by telephone.
   - Meetings should be scheduled for 2 - 4 hours, depending on the size of the questionnaire. To enhance attendance, the meeting should start with breakfast or lunch. Experience indicates that many groups were finished in 3 hours, even with our long questionnaire with nearly 400 questions.