

Troubleshooting Procedures – Technical Writing Lessons That Challenge
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Exercises and assignments in technical writing classes that ask students to create troubleshooting procedures provide an excellent opportunity for them to gain experience integrating sophisticated technical information into highly useful communication products. Presented as a culmination assignment or project, troubleshooting procedures require students to call upon most of the communication concepts they have covered in a technical communication course (process description, use of visuals, audience appropriateness, gathering information, clarity of presentation, etc.) as they create problem solving products for their audiences. In addition, students must be able to analyze technical data, determine the needs of their audience, and strategize the best methods for solving the technical problem and presenting that information for their users.

Bringing troubleshooting, fault isolation and fault identification procedures into the classroom is not an easy task. Although these procedures challenge students to use informational organizational skills, the required forms are far different than any of the narrative forms their education has concentrated upon in the past. As most troubleshooting procedures have alternate paths requiring logic and user decisions, the organizational strategies will vary from those of linear traditional step by step instructional material and may be presented in tabular or graphic formats.

In addition, in most technical communication courses students do not share disciplines or have the same degree of knowledge about specific technical content areas. This makes it difficult for an instructor to find common ground upon which important logical and strategic concepts for problem solving can be presented. If students don't understand the technology, they will not understand how to analyze it to create effective troubleshooting procedures. This can be a bar to meaningful assignments and limit classroom discussion and team sharing.

This paper discusses the use of troubleshooting exercises as a focusing activity in technical communication courses and shows how they can enhance students' understanding of various document formats and how they work for different users and different situations. The results of using several exercises designed to help multidisciplinary students understand how to strategically approach the design of troubleshooting and allied procedures will be presented.

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