DEVELOPING A TECHNICAL WRITING PROGRAMME

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Before explaining the "why" and "why not" of developing a technical writing programme, I would like to explain briefly the situation in which we found ourselves a year and a half ago. This will help you understand the reasons for a programme such as this one, as well as the particular orientation it has taken.

Carolynn Emeyriat discovered almost by accident that Canadian Employment and Immigration had refused to allow one of Montreal's major aircraft companies to import more than a dozen technical writers to work in its offices. The reason given was that qualified Canadians were available and should be hired. In fact, this was only partially true. Qualified Canadians were available, not because they had any special training, since special training is not available in this field, but because aircraft maintenance and electronics technicians existed who could write relatively well. These were the people on whom the aerospace industry relied to become writers of their various maintenance manuals. Unfortunately, this pool of potential technical writers is not very large and writing ability per se, although a necessity, merely opens the door. A fairly long and expensive training period is often the next requirement.

This, then, is the situation we had observed. We work in the Language Department at the aeronautics campus of a French-language CEGEP, or what you might call a community college. Our department has the dubious honour of giving all the report writing courses in the aircraft maintenance programme. The question we faced was, should we attempt to do something about an obvious difficulty in this rather specialized high-tech area, given our own limited resources and knowledge of this field. We thought we should and here is what we did.

We asked ourselves a number of questions, the significance of which I would like to dwell upon.

1. Is there an identifiable need for technical writers in the region served by the institution?

2. Does the nature of the technical writer's work require college or university level training?

3. To what extent is it possible to create a new programme in the institution?

4. What resources are available for development and implementation?

The first question raises the distinction between the employee who writes technical texts for in-house publication or client use and the employee in a technical field who must write in the normal performance of duties. The latter often has a technical writing course included in a programme followed in school, for example, electronics: the former describes the everyday work of the technical writer.

Many companies have a small number of technical writers who prepare user manuals. Other companies will ask the technician or engineer who did the work to prepare a manual for those using a piece of equipment or, as is often the case, a software programme. Normally, the development of a technical writing programme will require that a region have a fairly large population and more than one major company that employs technical writers. If not, the programme will be destined to an early demise once the job market is saturated.

The second question raises an interesting point concerning the appropriate level of training required for technical writers. In the United States, technical communication programmes are offered in community colleges and universities and can even be pursued at the doctoral level. However, our findings indicate that in the aerospace industry and related fields most technical writers in Canada require community college training, since most were previously technicians rather than engineers. Those without a technical background often have university degrees in English or the humanities.

The third question presents the serious situation in which many post-secondary institutions find themselves, albeit unwittingly. After the technological explosion of the 60s and 70s, many colleges and universities expanded greatly to meet important needs in the technologies and the sciences. Now that student populations are lower and many teachers have seniority, it can be very difficult in practice to open a new programme that will necessarily draw students from other well-established programmes. Departments of Education require detailed market analyses for placing students, not to mention the reception that a new programme may meet before local academic advisory councils. We found that the easiest route to follow was in adult education, specifically in programmes funded by Manpower, since they offer no threat to existing structures and they permit the adaptation and maturation necessary in a new programme.

The fourth question is much more down to earth than the previous ones. Full-time teachers of writing courses have very little time left over for the pursuit of minor projects such as developing entirely new programmes. This is particularly true of teachers who have little experience writing course outlines in areas in which they do not have a great deal of expertise, who have rarely left the school premises for long and detailed interviews with industry representatives and who have only a limited understanding of the labyrinthine structures of educational bureaucracies etc. In fact, there is little money available for the development of new programmes and what is available must be

supplemented by hundreds of hours of work above and beyond the call of duty. In fact, anyone who embarks upon this type of adventure must be strongly committed because volunteers will be few and far between.

A satisfactory exploration of the above questions will aid greatly in determining a successful outcome to such a project and will almost certainly assist in avoiding a great deal of unwanted frustration for those involved.

We felt it was necessary to conduct fairly wide-ranging consultations before proposing a definitive programme. One reason was that we did not really know what aerospace technical writers did; another reason was that we were to a great extent treading on new ground.

The first step was to make an initial and very preliminary proposal to the Ministry of Education. Once the proposal had been accepted, we adapted a questionnaire used for determining the profile of a particular position, including detailed information on the technical writer's job description, selection requirements, working conditions, salary and promotion prospects. The questionnaire was sent to many companies in the area. From the returns, we selected three companies for in-depth interviews. With the information collected, we were able to prepare a profile of a technical writer in the aviation industry. The profile was discussed and examined during a day-long validation session that included representatives from four major companies as well as the university community. [Ed. Note: A copy of the profile will appear in a later issue.]

At the same time, we sent letters to colleges and universities in the United States and Canada requesting calendars and information on technical communication programmes currently offered. This action added greatly to our knowledge of what was being done elsewhere. It also confirmed that the type of programme we envisaged was to a great extent unique in its requirements and scope.

The second step was the determination of academic goals that conformed to the philosophy of college-level education, as well as general programme objectives, specific programme objectives and a series of course descriptions adequate for teachers to prepare course outlines. In the end, this was a massive task because it involved the creation of a coherent, unified programme that covered all of the more than 120 specific programme objectives we had determined.

The third step was the holding of a second validation session which assisted greatly in determining the appropriate emphasis that needed to be given to a number of elements in the programme, as well as the length each course should be. Shortly before, we had sent out 200 copies of our programme proposal for comment to teachers, publications departments, government agencies and various interested individuals.

The fourth step was gaining approval for the programme from the various levels in the college administration, including departments, the Academic Council, the Board of Governors, and, of course, the Ministry of Education.

A point I have left to the end involves the orientation of any technical writing programme. This is not because it is the last step that should be taken, but rather it is a point that should be treated separately since it has far-reaching effects on all aspects of the programme. Should the programme be oriented toward training technical people to write technical documentation well or toward training people who have demonstrable writing ability to write technical texts? This question represents the gist of a longstanding controversy in the field.

Our feeling is that in order for a technical writer to have any credibility in the marketplace, the writer must have considerable background in a technical area, such as electronics, fabrication, computer software or hardware, business administration and any number of engineering and scientific fields. The writer's knowledge should go beyond that supplied by a few introductory courses in those areas.

Whether the writer is trained at the college or university level should depend primarily on the level of technical knowledge required and the type of documentation to be written. This can vary between simple user manuals and brochures to thousand-page engineering proposals.

The orientation that is ultimately selected will greatly affect the number of writing courses in such a programme, including placement tests of writing and technical ability. It will affect the number of technical courses in the programme that are necessary for upgrading the student's technical competence. It will affect the cost of the programme, not only in terms of equipment requirements, but also in terms of library and teacher requirements.

To summarize, the development of a programme in technical writing involves extensive consultations not only with industry but also within the institution. It involves an analysis of the results of those consultations that will permit the preparation of programme goals and objectives. In the end, the development of a programme in technical writing involves a great deal of work that goes far beyond what is normally required of technical writing teachers in terms of competence, personal commitment and challenge.

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