

Building a Network of SAS Users for Education and Technical Support

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Introduction

The evolution of SAS usage within a corporation falls into three, basic stages: beginning, middle, and advanced (figure 1). The beginning stage follows the installation of the SAS Basics package and is characterized by first time users who depend largely on individual efforts to design and debug their programs. The emergence of experienced users who train and provide technical support to others marks the middle segment. Advancing beyond this segment requires a corporate effort to centralize SAS education and technical assistance by hiring a full-time support staff. When it is difficult to fund a full-time staff, the user network is an alternate educational and support vehicle for moving a corporation toward the advanced SAS level.

The Education of SAS Users within a Corporation

A fundamental corporate goal is to shrink the relative time and effort necessary for SAS users to reach beyond the novice level and grow to the experienced and expert levels (figure 2). The SAS user network supports this goal by reinforcing SAS coursework¹ with tutoring, seminars, and briefings (table 1).

SAS Institute, Inc. products provide valuable support to networks lacking sufficient manpower and expertise to meet users' educational needs.

Depending on subject material, cost, flexibility, and versatility requirements, a corporation can arrange for SAS in-house training² or for SAS video training.³ On the other hand, networks with the "right"⁴ size and background have the ingredients to provide SAS training at a corporate or one-on-one level.

For SAS users to evolve, a network must plan for continuing education through seminars and briefings. In-house seminars provide the right atmosphere for cross-fertilizing knowledge:

- Through the Sharing of Novel Approaches to Problems
- By Disseminating Information on
Companywide and Other Data Bases
SAS Program and Format Libraries

In addition, informal briefings on new releases and enhancements provide a quick way to update users on the latest features SAS has to offer.

Taken together, courses, tutoring, seminars, and briefings form the cornerstones for increased SAS productivity through user education. A corporation must ultimately hire full-time staff to provide this user education if it expects to meet the ever increasing demand for strategic information.

Starting a SAS User Network

The scope and purpose of a SAS user network depends both on the evolutionary stage of a corporation and user expertise. Without a full-time support staff the network must assess its ability to provide both education and technical assistance to the SAS user community:

- Are there enough experienced users to provide support without detracting from their main job functions?

In contrast, the presence of a full-time support operation like an information center,⁵ frees the network to concentrate on seminars and briefings.

There are four key points in molding a SAS user network that balance individual needs against the availability of full-time support (table 2):

- Identify Experienced and Expert SAS Users to Anchor the Network
- Spread Responsibilities
 - Course and Seminar Development
 - "On Call" Hours for Assisting Users
 - Rotate Assignments
 - Tutors for Novice Users
 - Designation of Leaders to Consult with during Lengthy Projects
- Stress Flexibility
 - Tailor Network to Balance Corporate and User Needs
 - Available Time of Network Members
- Maximize Communication
 - Have Informal Breakfast and Luncheon Meetings
 - Hold Briefings on Current User Projects and Enhancements to SAS Packages

For the network to provide educational and technical support to the user community, spreading work among experienced SAS users is a must. Otherwise, the burden of this support falls unduly on one or more individuals. The purpose of the SAS user network is to maximize productivity through communication and education not to divert the focus of anyone's responsibilities.

Conclusion

Building a SAS user network provides a catalyst for productivity through communication and continuing SAS education. And, with its inherent flexibility, the network is a viable entity throughout the evolutionary course of SAS usage within a corporation.

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Figure 1

Evolution of SAS Usage within a Corporation

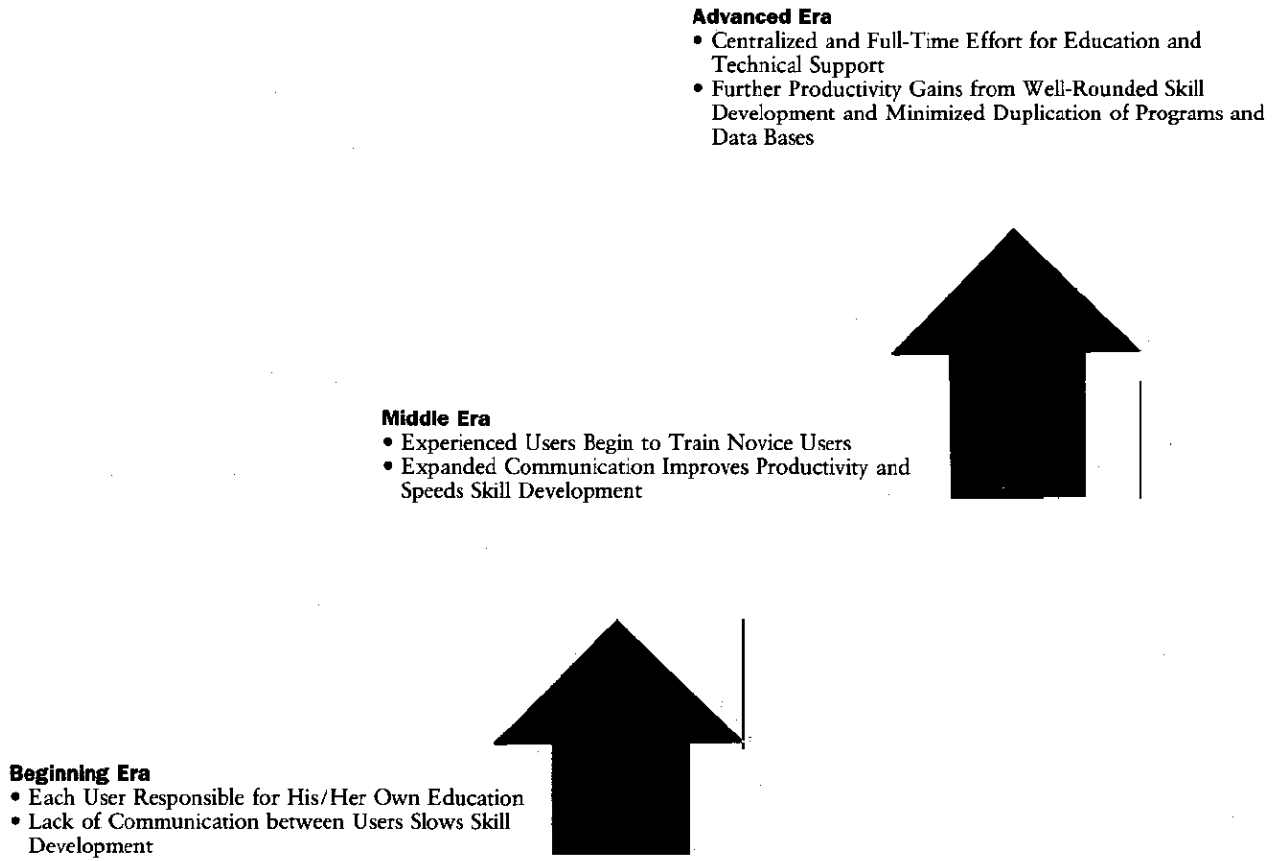


Figure 2

The Growth of Users' SAS Expertise

4

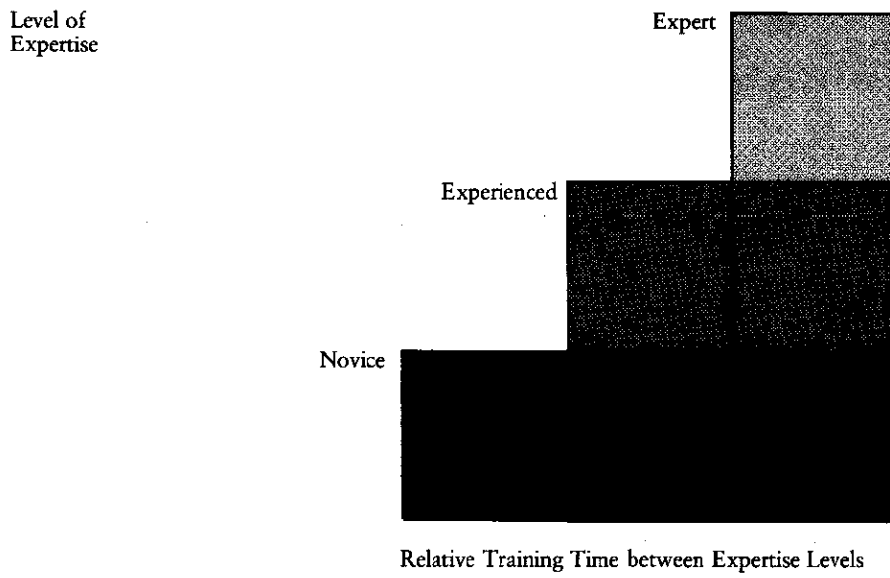


Table 1

Educating SAS Users within a Corporation

Initial Education of SAS Users	Continuing Education of SAS Users
<ul style="list-style-type: none">• SAS Institute, Inc. Sponsored Training Courses (Off-Site or In-House) Videocassettes	<ul style="list-style-type: none">• SAS Institute, Inc. Sponsored Training Courses Videocassettes
<ul style="list-style-type: none">• In-House Developed Training Courses Individualized Tutoring	<ul style="list-style-type: none">• In-House Developed Training Courses Seminars Briefings on New Releases and Enhancements Newsletter

Table 2

Key Points in Starting a SAS User Network

<p>Identify Experienced and Expert SAS Users</p>
<p>Divide Responsibilities</p> <ul style="list-style-type: none">• Share Course and Seminar Development• Divide "On-Call" Hours for Assisting Users• Develop Assignment Rotation for Tutoring and Consulting
<p>Stress Flexibility: Tailor Network to Balance</p> <ul style="list-style-type: none">• Corporate Needs• Available Time of Network Members
<p>Maximize Communication</p> <ul style="list-style-type: none">• Informal Breakfast or Luncheon Meetings• Briefings on Current Projects, Enhancements to SAS Packages

Footnotes

1. This coursework can be developed by the user network or provided by the SAS Institute, Inc.
2. SAS Institute, Inc., SAS/Course, Cary, NC (January-June 1983), pp. 39-40.
3. *Ibid.*, pp. 41-43.
4. Loosely defined, the "right" size network can provide educational assistance without detracting from people's main job functions. Network members with the "right" background have the expertise to design and teach SAS courses. The SAS Institute, Inc. provides free assistance in developing training programs by phone or at the SAS/Curriculum Workshop in Cary, NC. C.f. "SAS/Curriculum" (September 1982).
5. The information center is composed of highly trained professionals who have a command of computer tools and data analysis. Information centers do not replace data processing departments. Instead, they are partners in a corporate goal of bridging the gap between computer science and data analysis. For further information see: Martin, James. *Application Development without Programmers*. Englewood Cliffs, NJ: Prentice-Hall, 1982, pp. 289-339; Dotson, Tracy. The Information Center: Fast Relief from Programming Backlog. *Computerworld*. April 26, 1982, pp. In Depth/29- In Depth/33; and Dolkart, David R. Using SAS to Bridge the Gap between Computer Science and Quantitative Methods. Proceedings of the Seventh Annual SAS Users Group International Conference, Cary, NC, 1982, pp. 106-108.