



the association for managing and using information resources in higher education

MEMORANDUM

TO: Poster Session Hosts

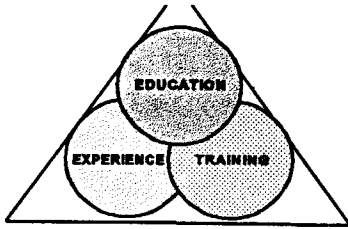
FROM: Julia Rudy, Director of CAUSE Publications

By this memo, we would like to invite you to submit a two-page summary of your CAUSE conference poster session to include with the online proceedings of the conference which we will mount on the CAUSE Gopher and Web servers after the conference.

If you are willing to send such a summary, please see the attached page which outlines guidelines for submitting material to CAUSE for online publication. The deadline for submitting a summary is December 20.

If you have any questions about this request, please get in touch with me at the CAUSE office (303-939-0308; jrudy@cause.colorado.edu).

Many thanks for participating in a conference poster session!



Education, Experience and Training Needs of Information Center Personnel in Higher Education

Bill Moressi, H.C. Haynsworth III, Edna Ward . . Winthrop University

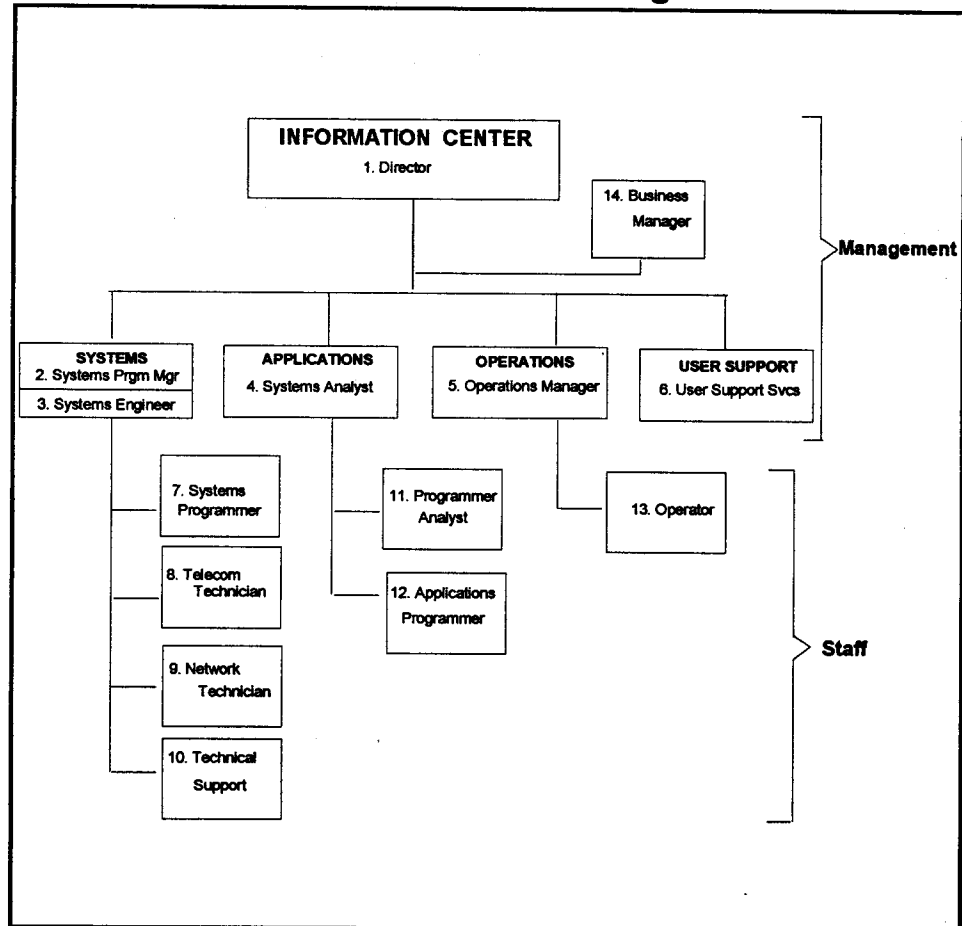
KNOWLEDGE ATTRIBUTES With the emergence and spread of new information technologies in education comes an increasing demand on Information Center (IC) personnel for specialized services in systems and end-user support. These services require IC personnel to have a high level of knowledge and skills—knowledge and skills that must be updated continuously. In light of these changes in information technology, how essential do educational institutions view the IC employees service functions? What do we expect from these personnel in terms of education, experience and training? Surveys were conducted on the education, experience and training needs of 14 potential positions normally found in IC's. Also, a level of "Essentiality" for each position was requested as part of the personnel profile. This information provides individuals with a basis to compare their support structures with those of IC's of other institutions. We performed a similar analysis in industry and display those charts for comparison purposes.

The hierarchical chart used in the survey is deliberately simplistic so that respondents could identify positions readily. It is shown here.

The following queries were made:

1. Is education and/or experience required for each of the positions? If experience is required, to what extent (how many years)?
2. Is training provided and, if so, is it external, internal, or both? If training is provided, how much (how many years)?
3. Of the positions listed, which ones are essential (by degree)?

Information Center Hierarchical Organization Chart



The following charts show the relative importance of the Knowledge Attributes across positions and at Management and Staff levels. The index, termed "Relativity Index" is one used to determine standard normal values, but is used here only as a way of visualizing the data . . it has no statistical significance.

Summary

Rapid changes in our work place environment, caused by technical innovations in computer processing and communications, force us into lifelong education and constant skill development. While this knowledge building holds for the users of IT resources, it is especially true for Information Center personnel who must implement these new information systems effectively and efficiently. Our success in this endeavor is dependent upon energizing and empowering personnel in the IC. IC personnel need to develop the ability to meet new situations as they arise, to adapt to changing conditions, and to solve new and different types of problems. Knowledge of what must be done to solve a problem and to solve it in an efficient manner often saves much labor and has a definite economic utility. Competitive enterprises take advantage of this empowerment process: "... when skills increase in complexity, employers respond by increasing training and becoming more involved in their local schools."

In this study, we focused on three "Knowledge Attributes" for employee empowerment in the IC: Education, Experience, and Training. Summary profiles have been provided for 14 potential positions. As one way of viewing the data, we classified positions as management and staff, feeling that there would be some differences in expected education and experience and training provided for the two personnel levels. This has been indicated to some degree.

As expected, having an education is more desirable for positions at the management level. This is especially true for the Director of an IC. What was surprising was that respondents placed the position of Business Manager relatively low on their education requirements. At the staff level, personnel holding programming positions were required to have more education than other positions at that level. Required experience followed trends similar to education. Over 31% of the respondents wanted personnel at the management level to have 5 or more years of experience. The position of Business Manager was not high on the respondents list for required experience. At the staff level, a small percentage (4%) of the respondents required 5 or more years prior experience; the majority preferred 3 years or less. Training is not a high priority for management level personnel, considered relatively more important for staff level positions where tasks are more repetitive and structured.

We observed that the various roles of IC personnel require a varied 'mix' of education, experience, and training. Those personnel involved in unstructured and semi-structured decision making¹ require more education and experience, whereas those involved in day-to-day operations tend to require more company training. Education and experience increases insight and understanding of "what" must be done to solve a problem. Training increases skills and competence and facilitates the employee's capability of performing the job.

To reflect more on the changing roles of education and training in our workplace, we quote from Hammer and Champy: "If jobs in reengineered process require that people not follow rules, but rather that they exercise judgement in order to do the right thing, then employees need sufficient education so that they can discern for themselves what the right thing is. Traditional companies typically stress employee training --teaching workers how to perform a particular job or how to handle one specific situation or another. In companies that have reengineered, the emphasis shifts from training to education- or to hiring the educated. Training increases skills and competence and teaches employees the 'how' of a job. Education increases their insight and understanding and teaches the 'why.'"

Our results reflect these "roles" for the various positions described. Each position is profiled by Knowledge Attribute and by organizational level. With the exception of Business Manager, respondents considered most positions described in our survey as important to the functioning of the IC. To serve the changing knowledge needs of industry, improvement of our educational system is and will be essential. Emphasis should be on undergraduate programs of general education in the arts and sciences as well as combinations of general and specialized programs in schools of business, computer science, and engineering.

¹ A semistructured problem is one in which only some variables are identified and their composition and relationships understood.