Chapter 4

Discussion of Expectations

Anticipated Benefits

The proposed research will serve to provide design guidance for IP videoconferencing network implementations in the post-secondary environment. Administrators in higher education continue to struggle with the strategic use and technical implementation of IP videoconferencing (Segers, 2002). As Cooperative Extension Services throughout the country continue to evaluate and implement IP videoconferencing, this proposed research will serve as a foundation for further evaluation.

Projected Outcomes

The main goal of conducting this type of research is to provide guidelines and a model for replication and interpretation by others. This case study contributes to the field of telecommunications by advancing the knowledge and practice of IP videoconferencing. The synthesis of the data will assist researchers in drawing a meaningful analysis from the findings. The presentation of the information will include data evidence that will clarify relationships among users’ perceptions and data obtained from all sources. This approach will provide a broad spectrum of documentation that supports the design methodology of the inquiry.
The implementation of the SDSU CEVN information system and the analysis that follows will provide the systems requirements. The systems analysis conducted in this inquiry will seek to construct meaning from the stakeholders and system users (Whitten, Bentley & Dittman, 1998). Data will be collected to support the design of the SDSU CEVN and is organized according to the methodology defined for case studies by Yin (1994). This data will be derived from observations, artifacts, interviews, and documents. The approach used to investigate [AU: word missing? “and” Sense unclear.] process the system analysis is the Systems Development Life Cycle (SDLC) formulated by Whitten et al. (1998).

Practical applications of the findings

Findings from this investigation will be used to formulate a model for an IP videoconferencing network implementation at land-grant universities. This model will assist those pursuing IP videoconferencing network development in the post-secondary environment with network design and implementation guidance. Specifically, the findings will be of practical use to telecommunications managers, chief information officers, extension educators and faculty, and administrators considering the implementation and operation of an IP videoconferencing network.

Constraints and limitations of the study

There are a number of limitations that influencing the results of this study. These limitations issues will present restrictions to the implementation of the project.
example the physical locations of the videoconferencing sites, for example, will impact the implementation of the CEVN, to include. This is due to the size, location, network access, and room design of the location. These physical characteristics will impact the overall design of the network implementation. Procurement and purchasing may also impact be an issue that places constraints on the project. All purchasing is regulated by the state, guided by state regulations, and subject to the processing of the South Dakota State Purchasing Office. This regulation and processing may impact the ability to purchase specific equipment needed to meet the requirements of the system. Such issues such as scheduling, facility management, and training all present challenges to the operation of the project.

Scheduling of the conferences and determining the purpose of the network may pose as additional constraints onto the operation. The growth in the demand for videoconferencing created one of the primary reasons for creating the SDSU CEVN, and the university needed a means for implementing and controlling the facilities to deliver campus programming. The SDSU Campus Resource Council will determine the focus and user priority for the system. Determining priority and eligibility for who has priority for scheduling on the system remains an important consideration; will be important. Also determining who is eligible to use the system and who has the ability knowledgeable and experienced people can only schedule to add conferences to the schedule will be necessary. How these considerations are defined and managed will create constraints to the effectiveness of the system.
Another limitation is the anticipated interaction with the technical staff from the local telephone companies, state government networks, and local networks, simultaneously, all at the same time to resolve problems. Because no one organization controls the entire network independently, collaboration in managing this project will be extremely important. Such issues as technical failures, maintenance, and operability will all influence the functionality of the SDSU CEVN. This is especially true for the connectivity of the sites. T1 lines must be leased from the Bureau of Information Technology (BIT). The operation and cost of these lines could present challenges as well. Finally, bandwidth could present limitations, the additional bandwidth to campus is negotiated with BIT as well.

Other limitations will include the funding and the time allotted for the project implementation. The project is funded through a USDA RUS grant resources for procurement, staffing, and implementation remain limited. Technical standards developed by the telecommunications industry will also be influenced by the technical standards developed by the telecommunications industry. Changing standards and changes in equipment pose considerable outside influences beyond the control of the researcher.

Recommendation for additional studies

The proposed investigation in this project will examines the implementation of an IP videoconferencing network at land-grant institutions. The investigator will be looking specifically at how faculty and extension educators at a land-grant university can
design, develop, and implement videoconferencing to help meet institutional missions.

Because this research will only document a single case model, modifying the design to investigate deployments in other higher education environments may provide usual information. Beneficial also for future evaluation would be the introduction of a new design to the equipment, network structure, or videoconferencing standards that would be beneficial to evaluate in the future.

Contributions to the field of study and advancement knowledge

Because this investigation examines the implementation of videoconferencing technologies in higher education, the results from this investigation will contribute significantly to the field of study because it examines the implementation of videoconferencing technologies in higher education. This proposed research seeks to document how videoconferencing delivered via Internet Protocol (IP) offers contemporary solutions for enhancing communication practices and academic endeavors. The utilization of IP videoconferencing in higher education addresses the need for rural delivery, flexible learning environments, and competitive educational settings.