

AACTE and GMU Collaboration

AACTE Design Treatment
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Table of Contents

AACTE AND GMU COLLABORATION	1
BACKGROUND	3
PROJECT OVERVIEW	3
NEEDS ANALYSIS	3
DATA	3
RESEARCH METHOD	4
EXTANT DATA REVIEW	4
ENVIRONMENT ANALYSIS.....	5
AUDIENCE ANALYSIS.....	5
TECHNOLOGY ANALYSIS	6
SURVEY	9
<i>Participants</i>	9
<i>Data Collection</i>	9
<i>Instrument</i>	9
<i>Results</i>	9
CURRENT CONDITIONS	11
<i>AACTE Collaboration Review</i>	11
TASK ANALYSIS	14
METHOD	14
AUDIENCE.....	14
ANALYSIS OF THE ACTIVITY SYSTEM	15
ANALYSIS OF CONTEXT	15
ANALYSIS OF STRUCTURE.....	17
<i>Task Analysis Collaboration Task and Features Matrix</i>	18
OPTIMAL CONDITIONS	19
DISCREPANCIES	19
OBJECTIVES	19
IMPLICATIONS	20
RECOMMENDATIONS.....	20
FLOWCHART.....	22
FORMATIVE EVALUATION.....	23
REFERENCES.....	24
APPENDIX 1 - COLLABORATION SURVEY	25

Background

The American Association of Colleges for Teacher Education (AACTE) is a voluntary organization of colleges and universities that consists of deans, provosts, and professors who collaborate to better prepare teacher educators. AACTE proposes and analyzes public policy, supports professional advancement and networking, and represents the teacher education community to encourage high quality preparation and continuing education for all school personnel. After 35 years, AACTE recently experienced organizational changes and new management. The new management would like to offer AACTE member's innovative ways to collaborate and communicate with their colleagues. AACTE would like to stand out above other learning communities for higher education professionals by offering new solutions to fulfill the increased need for efficient collaboration among learning communities

Project Overview

AACTE presented our team with the challenge of developing an online collaboration tool for its members. During our meeting with Bobby Cato, the technology coordinator for AACTE, the GMU team learned that the AACTE would like to offer its' members a collaboration tool where members can learn from one another, post documents, share resources, and discuss policies and procedures. At this time, AACTE's members do not have a method to quickly and efficiently communicate with each other using current technology. The members are having difficulty learning from each other and exchanging information in a timely manner. The members also currently do not have the ability to post documents and receive peer feedback. Mr. Cato stated that some members have requested a "portal" to share information among members. It was his understanding that the members were requesting a "think tank". In order to get a better understanding of the members' needs the GMU team conducted a performance and needs analysis. Our performance and needs analysis consisted of meeting with the Subject Matter Expert (SME), conducting a literature review, and reviewing surveys that were sent to higher educational professionals. The purposes of our analyses were to:

- Research literature to identify collaboration practices among higher educational professional/administrators
- Gain an understanding of the members' opinions related to collaboration and successful collaboration environments
- Identify existing collaboration tools that would meet the members' needs
- Identify existing collaboration practices among AACTE members

Needs Analysis

A needs analysis identifies the discrepancies between where an organization is and where it wishes to be. A needs analysis was conducted to identify the gap between current collaboration

conditions among AACTE members and what the members identify as optimal collaboration conditions.

Data

Research Method

The AACTE GMU team conducted an email survey, reviewed extant data, and interviewed the Subject Matter Expert

Extant Data Review

The GMU team reviewed the external and members only sections of AACTE's website for background information about the organization and current collaboration efforts.

The GMU Team also identified literature in reference to collaboration. Collaboration is defined as working together, especially in a joint intellectual effort. In addition, collaboration should be an interactive process which allows groups to develop shared rules, norms and structures. (Kezar, 2005). Since literature related to higher educational administrators and professors using online collaboration tools is sparse, our literature review focuses on literature related to electronic communication and developing collaboration practices. The following key points related to electronic communication and collaboration practices among university administrators and scholars will help guide us in our recommendations:

- **Electronic communication** (Wellman, Nazer, and Koko, 2000)
 - should complement not substitute in-person communication
 - fills in the gaps between face-to-face meetings

- **Collaboration** (Quitzsch, 1997)
 - Select a topic that deans find worth their time
 - Make sure that deans play an active role in deciding and conducting events

- Utilize technology as much as possible to facilitate communication and to help in pre-conference knowledge building

Computer mediated communication has enabled the operation of entire university programs online (Acker, 1995, Noam, 1998). Instead of university facilities localized at their university departments, formalized "collaboratories" link far-flung scholars, institutions and research centers (Finholt, 2000). Even more prevalent are informal collaborations between researchers and professors located in different universities spanning the globe (Koku, Nazer, et al, 2001).

Preliminary research has shown that computer mediated communication supports a range of instrumental, informational, social and emotional exchanges in work and leisure contexts (e.g Baym, 1995).

Environment Analysis

Collaboration, by definition, means to work together, especially in a joint intellectual effort. Collaboration involves “enabling the emergence of understanding and realization of shared visions in complex environments and systems.” (Wikipedia, 2005) Little research is available on the effects of collaboration, but one way in which those with similar professions or interests can collaborate is through Communities of Practice (CoP). The term CoP “refers to the process of social learning that occurs when people who have a common interest in some subject or problem collaborate over an extended period to share ideas, find solutions, and build innovations.” (Wikipedia, 2005) CoP are popular among groups because they are not bound by the rules of institutions. Recent literature on CoP shows positive and ground-breaking outcomes. CoP are essential among organizations not only for learning and communicating with colleagues, but also for fostering innovation and strengthening networks. CoP allow professionals to broaden their horizons, collaborate with other professionals, and become more efficient and effective at their own job.

Currently, AACTE has a website with a large amount of relevant content for their members to access information related to higher education. While cooperation between members may take place in other environments, AACTE’s website doesn’t currently promote collaboration, teamwork or mentoring. Policies governing the use of the AACTE website are directly related to those implemented by AACTE, mainly the use of an identification code and password to access the members’ section of the site which provides for some security in obtaining information. A review of the AACTE site shows that in the members’ section, there are links to AACTE Governance/Structure, but no contact information for those governing boards/committees, with the exception of the Special Study Groups.

In the members’ section, there are links to AACTE Governance/Structure, but no contact information for those governing boards/committees, with the exception of the Special Study Groups. Access to training and development via the AACTE website is based on the annual AACTE conference and summit along with the documents posted on the website. Assistance is not readily available for members utilizing the website. There are a few general links to AACTE, but no links or phone numbers for immediate personal contact other than in the “contact us” section where there members will find a box to type the name of the person to whom the inquiry is directed. AACTE members cannot communicate directly through the website. Staff and board members’ names are listed on the website, but there are no links to their e-mail addresses or phone numbers. The phone number and address for AACTE is listed at the bottom of the website on each page. The above listed measures are member’s only means of communication via the website.

Audience Analysis

AACTE members are comprised of college and university deans, chairpersons, professors, and provosts. The members’ roles include administration, teaching, research, and collaboration on committees within their affiliated institutions and external affiliates like AACTE. The subjects belong to a variety of learning communities and have advanced academic degrees; ranging from masters degrees to doctoral degrees. The members, range from their early thirties and older to make up this population.

The technological skills of these individuals were not assessed. Survey respondents reported using either email or a learning management system (LMS) to collaborate with their peers. It is our assumption that they are comfortable using these forms of technology.

The learners do understand what is included in collaborating with their peers. Most survey respondents want an online collaboration tool to work with their peers to co-write, grants, publications or presentations. They seem to have an overall positive attitude regarding collaboration. Using asynchronous tools would be to their benefit as they have very busy schedules. There are a few deans who deal strictly with internal management functions such as budget and technology that would rarely collaborate online with other institutions. But they may reference the materials on the collaboration tool.

“An online collaboration tool would be another, potentially elegant and useful, way to bridge distance and time constraints. Since all of us are extremely busy, any tool that could harness our energies and stay with the time dimensions of our jobs would be welcome.” (member survey)

Technology Analysis

There are many information technology collaboration tools. Some are definable but others are so broad they lose any meaningful application. Understanding the differences are necessary to ensure the appropriate technologies are employed to meet interactive needs. There are two significant methods of communicating in webbased or software based environments which are synchronous and asynchronous.

Synchronous- This is a type of two-way communication with virtually no time delay, allowing participants to respond in real time.

Asynchronous- This is a type of two-way communication that occurs with a time delay, allowing participants to respond at their own convenience. Example of an application of asynchronous communication is an electronic bulletin board.

Collaborative media can be divided into three categories depending on the level of collaboration—**communication tools**, **conferencing tools** and **collaborative management** (Co-ordination) tools.

Electronic communication tools send messages, files, data, or documents between people and hence facilitate the sharing of information. Examples include:

- e-mail
- faxing
- voice mail
- Web publishing

Electronic conferencing tools also facilitate the sharing of information, but in a more interactive way. Examples include:

- data conferencing — networked PCs share a common "whiteboard" that each user can modify
- voice conferencing — telephones allow users to interact
- video conferencing (and audio conferencing) — networked PCs share video or audio signals
- Internet forums (also known as message boards or discussion boards) — a virtual discussion platform to facilitate and manage online text messages
- chat rooms — a virtual discussion platform to facilitate and manage real-time text messages
- Electronic Meeting Systems (EMS) — a conferencing system built into a room. The special purpose room will usually contain a large screen projector interlinked with numerous PCs.

Collaborative management tools facilitate and manage group activities. Examples include:

- Electronic calendars (also called time management software) — schedule events and automatically notify and remind group members
- project management systems — schedule, track, and chart the steps in a project as it is being completed
- workflow systems — collaborative management of tasks and documents within a knowledge-based business process
- knowledge management systems — collect, organize, manage, and share various forms of information
- social software systems — organize social relations of groups
- Collaborative software can be either web based (such as UseModWiki or Scoop), or desktop systems (such as CVS or RCS).

Web Collaboration Software

These software packages designed to support collaborative work and intranets can be installed on your own server. It is important to consider the feasibility of a vendor solution as a option for collaboration. The following packages are options that could be considered when choosing a collaboration tool if purchasing and not building in house.

Groove

Peer-to-peer collaboration system.

Developer: Groove Networks

Platform: Windows

WikiWikiWeb

This is a simple but powerful tool that is unlike anything else. Essentially, a wiki is an open-ended, interlinked set of web pages that anyone can edit or add to. A wiki can be

used as a discussion forum, a database, an organically grown encyclopedia... you name it. There are now many versions, written for many different platforms. A list is available [here](#).

Developer: Ward Cunningham and others

Platforms: Many

Hosted Web Collaboration Environments

These web sites host private workspaces for online collaboration and virtual teams. They offer a variety of business-oriented communication tools and better security than [sites designed for public communities](#). Most are oriented primarily toward asynchronous communication, but some also offer real-time conferencing and instant messaging as well.

[Collaboration Gateway](#), by CommunityCrossings

Offers secure eCommerce, event registration, polling, email/eNewsletters, discussion forums, project management, eLearning classrooms, CRM functions, and other features.

[xPert eCommunity](#), by Q2Learning

Collaboration platform optimized for communities of practice and work teams. It is also available as licensed software.

[Facilitate.com](#)

Tools for brainstorming, categorizing and decision making designed to enhance productivity in the meeting room and over the internet.

[Web Collaborator](#)

Designed for collaborative work on written documents, combining attributes of wikis and blogs. Available free as a hosted service, or you can pay for a license to run it on your own server.

Online Classrooms & E-Learning: Software

These software products for online learning feature some form of asynchronous forum or message board facilities for group discussion.

[Moodle](#)

Free, open-source course management system with a wide variety of function modules, available in dozens of languages.

Platforms: UNIX, Windows, Macintosh (written in PHP)

[WebCT](#)

A tool for developing Web-based educational environments, including forums, chat, and e-mail.

Developer: University of British Columbia

Platform: UNIX

Survey

Participants

Survey participants were higher educational professionals consisting of Deans, Associate Deans, Professors, Associate Professors, and the Vice President for Research and Policy at AACTE.

Data Collection

The survey (Appendix 1) was distributed via email to 11 AACTE members and two non-AACTE members. Of the 13 emailed, 9 were returned.

Instrument

The AACTE GMU Team created and distributed a survey (Appendix 1) to gain an understanding of the members' opinions related to collaboration and successful collaboration environments and to identify existing collaboration practices among AACTE members.

Results

The survey (Appendix 1) consisted of six questions. A summary of the responses to these six questions follows.

1) What is your job position?

Survey respondents consisted of higher educational professionals. See Survey Participants above.

2) Do you collaborate with colleagues? How often? What methods do you use?

Yes, the participants collaborate with colleagues individually, in groups and with county school administration on: grants, publications, course development, and conference presentations. They mostly use email to send draft documents. If more than two people are involved they use tools such as WebCT, Blackboard or a group discussion tool. Face-to-face meetings and conference calls are also used when the task is more administrative in nature or a committee is involved.

3) Describe the perfect situation for collaboration with your peers?

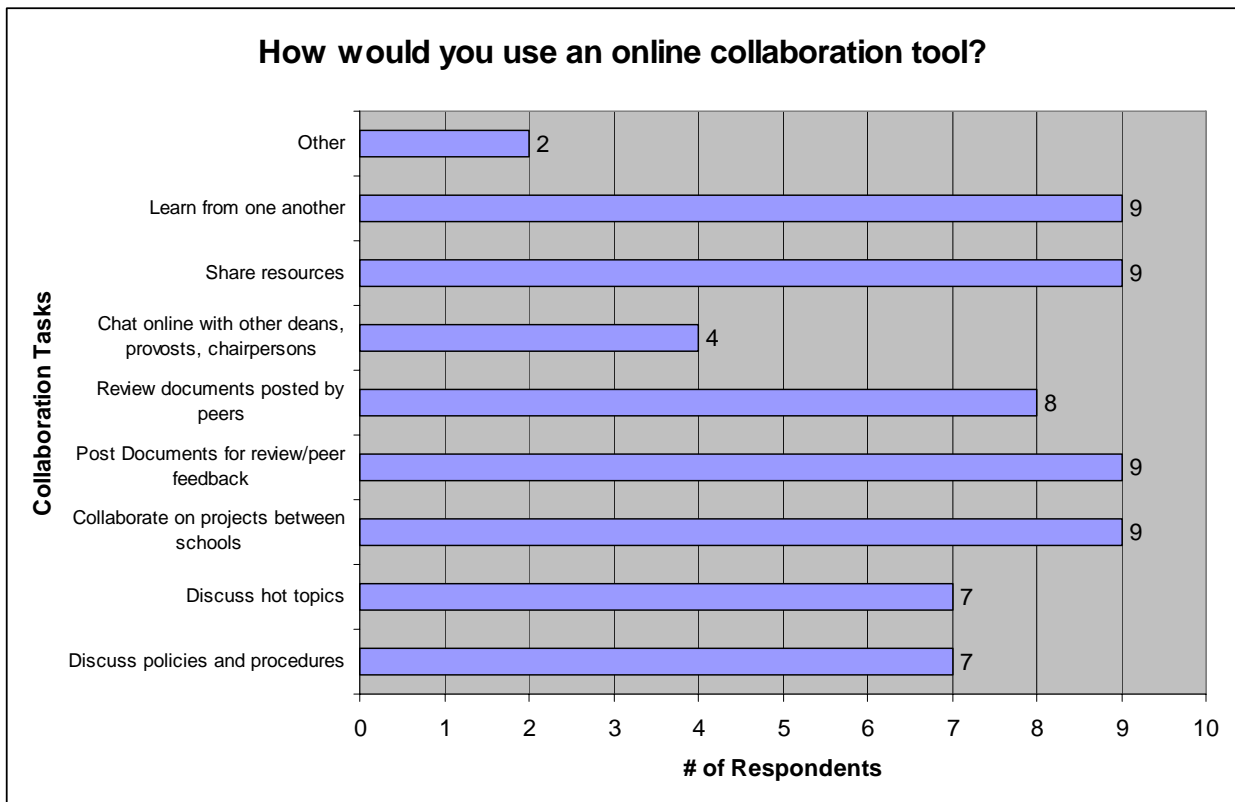
Perfect collaboration is when each collaborator has equal responsibility in accomplishing the necessary tasks for providing a professional service. In addition there is no one perfect solution for building such an environment. It depends on the task, number of people involved and where people are located. Most often a variety of methods are used.

4) Explain how having an online collaboration tool would benefit the professional environment for deans, provosts, chairpersons, and professors.

Online collaboration tools such as Blackboard allow archiving of content. This allows for each collaborator to contribute his/her work on a common project and then build upon each others contributions through, tracking drafts, revisions, conversations, etc. One can always go back to look at earlier drafts to track progress. Also, such a tool keeps everyone on the same page. For example, this kind of online collaboration is helpful when working with the county schools and then can be shared with neighboring counties.

5) How would you use an online collaboration tool to communicate with your colleagues at other universities/colleges? Check all that apply.

The graph below depicts the number of respondents whom selected the listed collaboration tasks.



Note: The two respondents who selected “Other” specified that they would also use a collaboration tool to track progress on a task, design lesson plans, develop evaluation instruments, and monitor teachers’ progress through their coursework.

6) List three things that would help you collaborate with your peers.

Survey respondents listed the following items as catalyst for collaborating with their peers. The number of respondents who listed similar items is represented by the number in parenthesis.

- Clickable directories
- Wireless access
- Ability to share resources
- Ability to co-write articles
- Ability review documents and provide feedback with a group
- A mutually beneficial and interesting project to work on together
- Time/support for collaborating on a project (4)
- Technical support (4)
- Peer willingness and enthusiasm for collaborating (2)
- Task organizer feature (2)
- Asynchronous and synchronous features
- A tool that works with endnote and checks for APA format accuracy
- Access to complete journal articles on line
- Laptops/ up-to-date technology (3)
- Face-to-face time
- Easy to use tools

Current Conditions

This section of the document will outline what is working in relation to the task of collaborating and communicating among AACTE members and their peers in higher educational institutions. The information included in this document was derived from the AACTE website, meetings with the Subject Matter Expert (SME) and a survey sent to members of AACTE.

AACTE Collaboration Review

What's working/happening in regard to collaboration as evidenced by the AACTE web site and information provided by the Subject Matter Expert (SME)

SME Interview

The GMU Team interviewed Mr. Bobby Cato to gain knowledge of members' current communication and collaborative practices, members' needs and AACTE's goals. From our interview with Mr. Cato we learned that AACTE members are currently communicating through email, journals, newsletters, conferences, and the annual summit. AACTE would like its members to feel comfortable collaborating with one another. They would like to offer the members an online collaboration tool that would facilitate the exchange of information and collaboration among schools and colleagues.

Website Review

AACTE Leadership Summit

This year AACTE held their annual Leadership Summit in Denver, Colorado from July 16-17, 2005. The purpose of the summit was to yield program & policy ideas that would guide the association in new and promising directions. Board of directors, chairs of committees, presidents of state chapters, and presidents of dean-alike organizations were in attendance. The key areas of discussion included leadership, accountability, member services, building membership and access. In regards to service to members it is relevant to our task of online communication and collaboration to note that a proposed new direction, “New Ways of Delivering Old Services”, was presented. The organization plans to develop new formats to deliver traditional services using an electronic and web-based delivery system.

Web Conferences

Deans, chairs and faculty from schools, colleges and departments of education, early childhood specialists, Pk-12 school personnel and government officials attended a web conference held October 25-27, 2005. The title of the conference was ‘Connecting the Teacher Preparation Pipeline: Effective Collaborations between Community Colleges and Four-Year Institutions’.

Topics included:

- Successful statewide partnerships and 2+2 models
- Recruiting teacher candidates for:
 - hard to staff disciplines
 - Early childhood teacher education
 - Urban and rural PK-12 schools
 - Bilingual and minority candidates
- Bridging the gaps among high schools, community colleges, and universities

Online Conference

The conference included both live web seminar events and presentations prerecorded for delivery in a web seminar format. Participants were able to interact with both conference presenters and other conference participants by posting and responding to comments and questions, providing and accessing resources, and participating in online chats. The conference was held in an innovative social software environment that facilitates effective adult learning. Registrants had access to the

conference website content for 60 days after the close of the conference. While a few events were presented live, most events were prerecorded and available at the convenience of the registrant.

Web Seminar

AACTE hosted its first web seminar on January 25, 2005, featuring AACTE President and CEO David Imig. The title of the Web Seminar was *Education Policy & Politics 2005 – Implications for Teacher Education*. During the web seminar participants interacted with leading voices in teacher education. They were able to listen to the presentation by phone while viewing the presenter's PowerPoint presentation on the internet. There was time allotted for questions and answers during the presentation. Participants could submit their questions over the phone or submit them via the internet.

Special Study Groups

Special Study Groups were established in 1988 by the Board of Directors to provide a forum for AACTE representatives and other interested persons to come together and discuss topics of interest. Special Study Groups collaborate/ communicate via email, phone, face to face meetings and newsletters. The following list details the range of topics addressed by the current twelve Special Studies Groups.

AACTE Special Study Group topics:

- Admission and retention
- Arts and Sciences collaboration with teacher education
- Deans of color
- Elementary education
- Global and international teacher education
- Historically black institutions and other interested persons
- Multicultural education
- Para-Educators
- Race and racism in teacher education
- Service-learning
- Social and cultural foundations of education
- Women in the deanship

AACTE members' reported collaboration with peers

In AACTE's 2003 Annual report it is noted that "teacher educators find it easier many times to collaborate with PK-12 faculty than to form partnerships within our own institutions." (Downloaded November 1, 2005 from

http://www.aacte.org/about_us/03annualreport.pdf). This statement suggests that teacher educators are collaborating more with PK-12 faculty than among one another. However, the members surveyed in our performance and needs analysis, conducted in September and October of 2005, reported collaborating with their peers on a daily basis. The methods employed in collaborative efforts included email, phone, face-to-face, Personal Digital Assistant (PDA), online (WebCT, Blackboard or other group discussion tools), and conference calls. The importance of collaboration was stressed in the members' responses. Specific collaboration tool features were listed as proposed catalyst for aiding in collaboration among members. A summary of the features include the following:

- List serves
- Clickable directories
- A Task organizer feature
- Synchronous and asynchronous communication
- Accountable collaboration
- Collaborative discussion areas
- Archive

And the ability to:

- share resources
- co-write articles
- review documents and provide feedback within a group
- learn from one another

Task Analysis

Task analysis identifies the knowledge, skills, and attitudes that job performers must have to complete a task. Objectives for learning are the outcome of a task analysis. The GMU team conducted a task analysis to determine objectives, task priorities, and product recommendations.

Method

To analyze the tasks of collaboration and communication among AACTE members the GMU team used Activity Theory Analysis. Activity Theory Analysis focuses on activities in which people are engaged, the tools used, the social and contextual relationships among the collaborators, the goals and intention of the activities, and the objects or outcomes of those activities (Jonassen, Tessmer, and Hannum, 1999).

Audience

AACTE members are comprised of college and university deans, chairpersons, professors, and provosts. The members' roles include administration, teaching, research, and collaboration on

committees within their affiliated institution and external affiliates like AACTE. The members are active participants within AACTE. However, some may be passive receivers of the information presented by the organization (AACTE). The subjects have advanced academic degrees and belong to a variety of learning communities. AACTE would like to stand out above other learning communities for higher education professionals by offering innovative solutions to fulfill the increased need for efficient collaboration among learning communities.

Analysis of the Activity System

The ACTTE website currently has a great deal of content for members to review, but lacks a method to quickly and efficiently communicate with each other. Their site does not provide specific rules for use of the resources provided by AACTE. Rules are usually directly related to current policy and procedure that resides with in each university policy and procedure booklet and rules of communication within that University. The rules would also be governed by the current technology that is being used for the collaboration. This may include email usage, phone usage, PDA availability or network availability.

Historically, the AACTE website has been a collection of information for members to review and use as needed. AACTE is launching a newly-designed website in January of 2006 at their yearly conference, in an attempt to have a more efficient, better organized website for their members.

In 1998, Special Study Groups (SSG) were established by the Board of Directors for AACTE representatives to discuss special interest topics. There are twelve Special Study Groups currently available: Admission and Retention, Arts and Sciences Education Collaboration with Teacher Education, Deans of Color, Elementary Education, Global and International Teacher Education, Historically Black Institutions and other Interested Persons, Multi-Cultural Education, Para-Educators, Race and Racism in Teacher Education, Service-Learning, Social and Cultural Foundations of Education, Women in the Deanship. The Special Study Groups currently work together using more traditional means of communication along with e-mail in their collaboration efforts. In addition, newsletters are published by Special Study groups in an effort to communicate with colleagues.

AACTE members currently use several methods of communication to collaborate with one another. Informal methods of communication include phone conversations, Personal Digital Assistant correspondence, and emails. More formal methods of communication include newsletters, Journal articles, meeting minutes, face-to-face conferences, phone-conferences, list-serves, and face-to-face group meetings.

Analysis of Context

AACTE members expressed to the organization that they are having difficulty learning from each other and exchanging information in a timely manner. Currently they do not have the ability to post documents and receive peer feedback. They requested a method that would enable them to share resources with their colleagues.

The search for an outstanding solution to resolve the need for a collaboration tool was initiated by AACTE's leaders. AACTE would like to entice new members to join their organization and better meet their current members' needs through their newly-designed website in conjunction with an efficient collaboration tool.

The use of an online tool for collaboration and communication among colleagues of member institutions to promote professional development and knowledge sharing is in alignment with the AACTE technology initiatives listed below.

The AACTE Committee on Technology in Teacher Education assists AACTE in the following endeavors:

- to promote the use of technology by member institutions in all aspects of teacher education
- to provide leadership in professional development programs to promote the use of technology
- to support members in the acquisition, implementation, and use of technology
- to model the use of technology to promote the empowerment of members and facilitate interaction with and among member institutions
- to explore broader questions raised for the profession and the organization by the use of technology

AACTE members' motivation to collaborate with colleagues stems from the desire to learn from one another, share resources, collaborate on projects with other schools, discuss hot topics in education, and receive peer feedback. Awards granted by AACTE should be included as a motivational factor. Awards are issued at the annual AACTE meeting for excellence in the following categories: Writing and Research, Best Practices, and Professional Achievement. These awards recognize individuals who have made considerable contributions to AACTE and to the field of education throughout their careers. The collaboration tool will enable colleagues to discuss best practices and collaborate on writing and research projects.

Members surveyed reported that they would be more successful collaborating with their peers if they had more time, technical support, up-to-date technology, access to technology (a laptop, wireless access) and peer enthusiasm and willingness to participate in collaboration. Therefore, lack of time, out dated technology, limited access to technology, and poor technical support can be listed as physical aspect limitations to this activity's success.

Members who participated in the survey voiced their concerns for time and commitment to learning and utilizing a new communication tool. AACTE members may assume that since AACTE's website will be more efficient and organized, that they will not need to put forth a great deal of effort to effectively utilize the collaboration tool as well. It may be difficult to convince AACTE members that the collaboration tool is valid and meaningful to their professional endeavors and that the additional effort put forth to learn the collaboration tool is worthwhile. For this tool to be effective, AACTE members will have to put forth an increased effort to become familiar with the collaboration tool. The increased effort will be supported by AACTE's commitment to providing technical assistance available to members through this process and well beyond the learning stages. As users become more familiar with the

collaboration tool, a decreased amount of effort will be needed for efficient collaboration to take place.

Analysis of Structure

Components of the collaboration tool will be interrelated, in a variety of ways, with other components of the tool. When AACTE members are collaborating with one another, they will have several choices of how they would like to communicate and utilize the tool. It is necessary to include choices in the tool to meet the needs for communication among the differing levels within the higher education community. There will not be any pattern or formally established relationship among the components of the collaboration tool other than the ability to use multiple components and combinations of features. AACTE members will be able to choose how they want to use the collaboration tool to collaborate with one another.

Task Analysis Collaboration Task and Features Matrix

The purpose of this task analysis matrix is to analyze collaboration tasks in relation to collaboration tool features

	Collaboration Features									
Collaboration Tasks	Threaded discussion area	Asynchronous communication	Synchronous communication	Archive	Version Control	Timeline/ Organizer	Accountability	Tutorial/Live help/Technical Support	List serves	File Repository
Discuss policies, procedures and hot topics in education	X	X	X		X		X			
Provide peer feedback	X	X		X			X			
Perform collaborative research		X	X	X	X	X	X			X
Collaborate on teaching practices	X	X				X				X
Share resources		X		X	X			X	X	X
Learn from one another	X	X	X							
View, update and post documents among peers		X		X	X		X			X
Access help			X					X		
Collaborate on projects between schools	X	X	X		X	X				X
Co-write articles, grants, publications and presentations	X	X	X	X	X	X	X			X

Optimal Conditions

Research has shown that collaboration enhances the learning process by encouraging participants to challenge one another and themselves and allows participants to give and receive assistance in a professional working environment. A collaboration tool will help AACTE to more effectively meet members' needs and allow members to make innovative progress on projects, research, and understand and implement policies and procedures.

Ideally, AACTE members would be able to communicate with one another to share information, discuss issues and receive feedback from peers. AACTE members have expressed a desire to be able to innovatively communicate and collaborate with one another through AACTE. Ultimately, collaboration efforts would allow AACTE members to communicate more easily and effectively with staff for assistance or to provide suggestions. Communication would be promoted throughout the website, including access to a collaboration tool. For a collaboration tool to be most effective, members would have shared objectives, be committed to one another and the work in progress, communicate openly and feel valued.

Discrepancies

There is a discrepancy between the way AACTE members currently use the AACTE website and the organization and what members are looking to gain from membership in the organization. AACTE members are seeking a way to enhance their learning from one another through an innovative, yet simple tool to assist them in communicating information, ideas, and providing and receiving feedback. AACTE would like to meet members' needs for an easier, more innovative way to share information.

The discrepancy between the lack of ability to communicate with one another or AACTE staff through the website and the ideal communication efforts for optimal learning occur due to members' inability to easily communicate and learn from one another. The difference between the current and optimal conditions can be resolved by creating an innovative, professional collaborative environment where members can work together and quickly and easily elicit technical assistance from AACTE staff when using the tool.

Objectives

Following are the objectives for the learners when utilizing the collaboration tool:

- The members will discuss policies, procedures and hot topics in education by accessing a secure online discussion area.
- The members will work collaboratively on research projects with other members by searching, posting, retrieving, and reviewing posted documents, as well as providing peer feedback in a collaborative tool to co-write journal articles, presentations or other research projects.

- The members will seek assistance through the use of a tutorial, facilitators of discussions, and technical help when necessary.
- The members will participate in synchronous collaboration by utilizing the live discussion feature.
- The members will participate in asynchronous collaboration through the use of threaded discussions and e-mail.

Implications

The results from the needs analysis and task analysis indicate that although AACTE members are collaborating using methods such as email and face-to-face meetings, collaboration among members is cumbersome. AACTE wants to offer its members a way to collaborate, learn from one another, and share resources. Reviewing the surveys, it is evident that members are willing to collaborate given the appropriate tools. The survey respondents reported collaboration methods already in practice and ways in which a collaboration tool could enhance collaboration among members. Using the information gained from the surveys, SME interview, needs analysis, and task analysis the AACTE GMU Team arrived at the recommendations listed in the following section of this document.

Recommendations

Our recommendation is to implement a collaboration software tool. Collaborative software, also known as groupware, is application software that integrates work on a single project by several concurrent users at separated workstations.

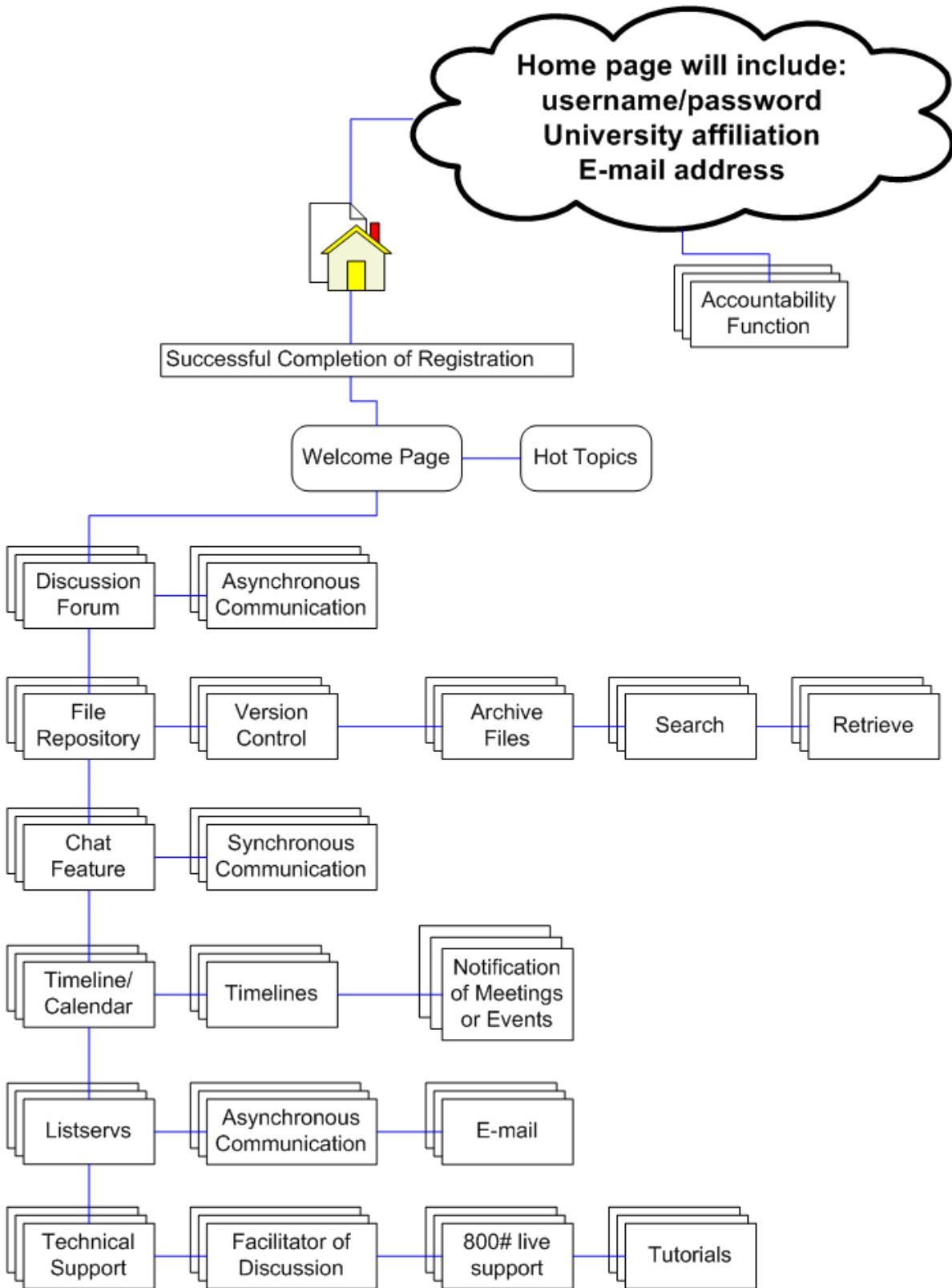
The users should be able to utilize each of the following components of the collaboration tool to achieve their goals of effective collaboration:

- Co-write Grants
- Co-write Publications
- Co-write Conference Presentations
- Perform collaborative research
- Share resources
- Collaborate on projects between schools
- Discuss policies, procedures and hot topics in education
- Discuss hot topics in education
- View and update documents
- Post Documents for review or peer feedback
- Collaborate on teaching practices
- Provide peer feedback
- Learn from one another
- Access help

The nature of this collaboration tool is a tangible online environment with the following features:

- Asynchronous Communication
- Synchronous Communication
- Threaded Discussion Area
- File Repository
- Version Control
- Ability to archive, search and retrieve items
- Accountability - Accountable collaboration
- Organizer –timelines, (Notification of meetings and event etc.)
- Technical Support: a tutorial, facilitators of discussions, and live help
- Listservs
- Anonymity privacy and security of members

Flowchart



Formative Evaluation

The AACTE GMU team received feedback after completing each portion of the project from peers in the EDIT 730 course and the professor. The AACTE GMU team implemented changes based on the feedback provided. One of the suggestions was to elaborate on why we chose particular methods of analysis and explanation how the various analyses brought the GMU team to conclusions and recommendations. The GMU team added explanations to each section, making clarifications about why and how we chose varying analyses. The peer guidance also recommended listing the survey questions along with a summary of the results for reference in the event that there were any doubts regarding the results and recommendations of the analyses. The GMU team included the survey used and summarized the results throughout the document where appropriate.

The GMU team's plan for additional formative evaluation is to have an expert review the design document and prototype. An expert's thorough evaluation and feedback will assist the GMU team in the development process of the collaboration tool. After completion of the development, but before full implementation into the website, a select group of users will be chosen to use the collaboration tool and asked to evaluate it. An ongoing evaluation, after full implementation of the collaboration tool, will allow all users to provide feedback and provide the GMU team and AACTE with suggestions for improvement.

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Appendix 1 - Collaboration Survey

1. What is your job position?
2. Do you collaborate with colleagues? How often? What methods do you use?
3. In an ideal situation, how would you like to collaborate with your peers?
4. Explain how having an online collaboration tool would benefit the professional environment for deans, provosts, chairpersons, and professors.
5. How would you use an online collaboration tool to communicate with your colleagues at other universities/colleges? Check all that apply
<input type="checkbox"/> Discuss policies and procedures <input type="checkbox"/> Discuss hot topics in education <input type="checkbox"/> Collaborate on projects between schools <input type="checkbox"/> Post Documents for review or peer feedback <input type="checkbox"/> Review documents posted by peers <input type="checkbox"/> Chat online with other deans, provosts, chairpersons <input type="checkbox"/> Share resources <input type="checkbox"/> Learn from one another <input type="checkbox"/> Other
If other, please specify:
6. List three things that would help you collaborate with your peers?