

~FAST Tex 2004 Program Evaluation Report
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Executive Summary

The purpose of the Faculty And Student Teams for Technology (~FAST Tex) program is to support technology-based instruction at UT Austin by partnering technology-literate undergraduate and graduate students with faculty to help them incorporate technology into their instruction. The program is operated by the Center for Instructional Technology (CIT), which provides managerial, administrative, and technical support. The core goals of the program include: 1) the on time and within budget completion of all projects that meet faculty expectations; 2) preparing students for the work world by helping them to learn project management and technical skills; 3) providing UT Austin faculty with technology based instructional resources that positively impact students in their courses; and 4) providing program satisfaction for faculty clients and student developers through technical, administrative and managerial support.

UT Austin faculty submit project proposals to CIT in the fall. Student developers are hired by program staff and assigned to faculty projects based on their technological skill set and project needs. Student developers are paid hourly wages by CIT using Instructional Technology Appropriations Committee (ITAC) grant funds and are supervised by both faculty clients and program staff. Depending on student abilities and project needs, some projects are staffed by multiple students and some students work on multiple projects.

In 2004 (September, 2003-August, 2004) the ~FAST Tex program funded 62 projects employing 48 student developers at a total cost of \$132,085. The 63 faculty applicants estimated that, once their projects are complete, 31,879 users would be served. The types of projects funded ranged from the development of course websites to the creation of complex databases and instructional tools. The program employed a part-time (75%) program manager and part-time (25%) program administrator.

The purpose of this evaluation is to assess the success of the program based on established program goals and gather information to inform future program implementation, changes and growth. In its first five years, the program had never been systematically evaluated. The following evaluation report includes results from two online surveys of student developers, an online survey of faculty clients, a student focus group, a quality review of completed projects, and various program output measures. Recommendations are based on evaluation findings and conclusions and are intended to specifically address program challenges.

Overall, the ~FAST Tex program is successful in its core goals of providing a learning experience for its student developers and in providing technical, administrative and managerial support to faculty clients and student developers. However, there do appear to be some challenges with project quality and the timely beginning and completion of projects with late projects sometimes exceeding their budgets. These problems are at least partially related to the program's short operational timeline, insufficient staffing, and minimal monitoring of individual project progress. A summary of study conclusions and recommendations follows. Table 20 (p. 34) shows the linkages between program challenges and evaluation recommendations.

Student developers generally liked participating in the program because of the flexible work hours and the opportunity to learn new skills. Students rated the assistance they received from CIT staff positively. Most student developers do not use the ~FAST Tex website on a weekly basis and do not consistently complete weekly activity logs. Students with multiple projects were more likely to experience project related challenges than were students with only one project.

Faculty clients were also generally satisfied with the program and the assistance they received from CIT. Most faculty are also satisfied with the performance of the student developer(s) assigned to them. Like the student developers, faculty clients do not use the ~FAST Tex website to its full potential and report having some technical problems, time management issues, and difficulty in getting content their student developers. Beginning projects late (after February 1) was the challenge cited most frequently by both student developers and faculty clients. A large proportion of both groups also report providing/receiving inappropriate levels (too much or too little) of supervision.

An examination of program projects indicated several challenges. First, only a third of projects were completed on time (by May 31, 2004). By the end of the program year (August 31, 2004) a third of the projected remained incomplete and had to be extended and allocated additional student developer hours. Projects also varied as to the amount of consulting time needed to complete them with more complex projects having higher average consulting costs and a lower likelihood of being completed on time. Overall, the quality of completed projects is only average and none of the projects reviewed was rated "Exemplary." These findings suggest that some projects may not be suitable for inclusion in the program due to their complexity, technical difficulty, or scope.

The evaluation recommendations are interrelated, focus on addressing program challenges, and will be most useful if considered holistically. They include increasing program support staff, refining the proposal and orientation processes, improving project oversight and quality, modifying the program cycle and integrating evaluation activities into regular program operations. Taken together, these recommendations are designed to address all the major program challenges identified in this study.

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Summary of Conclusions

Student Developer Conclusions:

- Students developers like participating in the ~FAST Tex program because of the flexible nature of the work hours and the opportunity to learn new skills. Dislikes include the application and time-keeping procedures.
- Student developers who received project assistance from CIT staff rated the assistance positively. Nearly a quarter of students did not request project assistance from CIT staff.
- Most student developers do not complete activity logs regularly.
- Most student developers do not use the ~FAST Tex website on a weekly basis.
- Nearly all student developers report learning a variety of technical (e.g., hardware, software) and non-technical skills (e.g., project, time and client management) as a result of participating in the program with the learning of non-technical skills being reported more frequently.
- Student developers with multiple projects are more likely to experience challenges than single project students. These challenges are due to the complexities of managing multiple projects and beginning one or more of the projects late. Interactions with faculty also appear to present more challenges when students work on multiple projects. However, students with multiple projects report time management as being a challenge *less* frequently compared to students working on only one project.

Faculty Client Conclusions:

- Faculty clients are generally satisfied with both the technical and program assistance they receive from CIT. The program manager, Suzanne Rhodes, was frequently singled out for praise.
- Faculty do not currently use the ~FAST Tex website to its full potential.
- Beginning projects late (after February 1) is the challenge most frequently cited by faculty and is contributing to projects being completed after May 31. It may also be contributing to their project management difficulties and the feeling that the project time frame of one semester is inadequate.
- Other project related challenges for faculty include technical problems, time management issues, and difficulty getting content to student developers. Student developers reported these same difficulties in similar proportions.
- Most faculty are satisfied with their student developer's ability to communicate, provide technical assistance, meet deadlines, and do quality work. A few, however, report dissatisfaction in one or more of these areas.
- A large proportion of both faculty and student developers report providing/receiving inappropriate levels of supervision. An inadequate level (less than what is needed) of supervision by faculty is likely a contributing factor to project challenges such as communication, work quality, the ability to meet deadlines and projects meeting faculty expectations.

Program Output Conclusions:

- Only a third of projects were completed on time. Even with an additional 27% completed prior to the end of the program year (August 31, 2004), a third of projects remain incomplete. The late completion of projects is at least partially due to them being started late (after February 1). Other contributing factors may include project management issues between faculty and students and improper scoping of projects when they are accepted.
- Program projects vary in type and degree of resources required for completion. Projects involving web development and/or programming require the fewest consulting resources and have the highest percentage of completed projects and thus seem best suited to the program. More complex projects involving database development, video, audio, or requirements design require more consulting time and have average to below average completion rates. Some types of projects may not be suitable for inclusion in the program due to their complexity, technical difficulty, or scope.
- Overall, the quality of completed projects is only average and none of the projects was rated “Exemplary.” Although it is not completely clear why projects are not of higher quality, one possible explanation is that many projects did not have clearly stated instructional objectives. This, however, does not explain the mostly average to below average ratings received in the Design and Function category.

Program Goals Conclusions:

- The goals of all projects being completed on time (by May 31); on budget (100 hours of student work); and meeting the individual project goals set by faculty are largely unmet. Only a third of the projects were completed on time and projects extended after August 31, 2004 will likely exceed their original budgets of 100 hours of student work. Although a majority of faculty report their projects meeting their expectations, it is difficult to determine whether individual project goals are being met when many project applications do not contain clearly stated objectives.
- Students overwhelmingly reported learning both project management and technical skills as a result of participation in the ~FAST Tex program. Only two students indicated they did not learn anything new.
- It is not within the scope of the present study to determine whether the program is providing an increasing number of UT Austin faculty with technology based instructional resources that positively impact student for use in their courses. A longitudinal study of past ~FAST Tex projects (Phase III) could help to determine the program’s impact on faculty, student developers, and users.
- Nearly all student developers and faculty rate the technical, administrative and managerial support they received from program and CIT staff as “Good” or “Excellent.”

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Summary of Recommendations

- 1. Increase Program Support Staff** – One part-time (75%) program manager and one part-time (25%) program administrator do not appear to be adequate to manage the program at its current level and is likely contributing to project oversight challenges. Hiring an additional program manager and increasing the program assistant position to half-time would allow for improved project oversight and likely improve project quality and on time completion rates.
- 2. Refine the Proposal Process** – Future proposal forms should be more structured and specifically require faculty to state clear project objectives (specific tasks to accomplish), instructional objectives (how will the technology/tool improve instructional outcomes), and precise outcome measures (how will you know if objectives are met). Clearly stated objectives and outcome measures will help program staff to evaluate the appropriateness of projects prior to acceptance and the success of projects upon completion. Having clear and measurable acceptance criteria for projects will also assist staff in systematically determining which projects are most appropriate for the program.
- 3. Refine the Orientation Process** – A program manager should attend all kickoff meetings even when the faculty client and student developer have a previous relationship and orientation sessions should be made mandatory for all student developers no matter when they are hired (e.g., if students are hired “late” then there needs to be a scheduled orientation session for them). Individual orientation meetings should be scheduled with each faculty client to review program guidelines, processes, and services. Finally, both faculty clients and student developers should be provided with some instruction in the management of technology related projects.
- 4. Improve Project Oversight** – Several of the findings related to project quality, on time completion, and faculty-student challenges suggest that project oversight could be improved. First, project progress should be more systematically monitored through mid-project progress meetings, tracking project milestones, and making the timely completion of weekly activity logs by student developers mandatory. Second, faculty clients should be required to complete an end-of-project report as part of receiving a ~FAST Tex grant.
- 5. Improve Project Quality** – To improve project quality, program staff should consider being more selective in choosing projects for the program by avoiding projects that are overly ambitious (inappropriate scope), require technical skills beyond the capabilities of student developers, or have unclear or vague instructional objectives. Assigning student developers to only one project at a time could also improve project quality. Program staff may also want to consider hiring a pool of experienced student developers to act as “specialists” on multiple projects. Taking the recommended steps to improve project oversight should also help to improve project quality.

- 6. Modify Program Cycle** – Given that only a third of all projects were completed on time, many projects were begun late, and both students and faculty indicated that a four month time frame was inadequate, program staff and division leadership should consider making significant modifications to the program cycle. Specific recommendations focus on beginning the program cycle in late August and allowing for flexible project begin and end dates.

- 7. Integrate Evaluation Activities into Regular Program Operations** – Program evaluation should be ongoing and part of regular program activities. In conducting the present program evaluation, several recommendations for improving internal evaluation processes became apparent. These include the ongoing collection and maintenance of audit measures; continuing and further automating the mid- and end-of-semester student surveys; using mid-term progress meetings as a data gathering opportunity; tracking project milestones using a spreadsheet or log; and using end-of-project reports, project tracking documents, and student activity logs as part of the project quality review.

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Background

Program Description

The Faculty And Student Teams for Technology (~FAST Tex) program's purpose is to support technology-based instruction at UT Austin by partnering technology-literate undergraduate and graduate students with faculty to help them incorporate technology into their instruction. The program is operated by the Center for Instructional Technologies (CIT), which provides managerial, administrative, and technical support.

UT Austin faculty submit project proposals to CIT in the fall. Projects are chosen based on their ability to support instruction, feasibility, technical needs, and scope. Faculty projects come from a variety of disciplines in Education, Engineering, Liberal Arts, Natural Sciences, Fine Arts, Business, Nursing and Social Work. A few ~FAST Tex projects support other UT Austin programs.

Student developers are hired by program staff and assigned to faculty projects based on their technological skill set and project needs or are nominated to participate by faculty. Student developers are paid hourly wages by CIT using Instructional Technology Appropriations Committee (ITAC) grant funds and are supervised by both faculty members and program staff. Depending on student abilities and project needs, some projects are staffed by multiple students and some students work on multiple projects.

Center for Instructional Technologies staff provide the bulk of technical, managerial and administrative assistance to ~FAST Tex projects. A variety of CIT staff members provide technical assistance to student developers. Project management assistance includes consulting with faculty in developing project proposals, interviewing and matching student developers to appropriate projects, conducting orientation sessions, and acting as a mediator between faculty and student developers. Administrative support includes making personnel appointments, managing payroll, maintaining the ~FAST Tex website, and basic recordkeeping.

Program goals

~FAST Tex program manager, Suzanne Rhodes, identified the following as the primary goals of the program:

1. Realize 100% project success as measured by all projects being completed on time (by May 31); on budget (100 hours of student work); and meeting the individual project goals set by faculty.
2. Prepare students for work after graduation in helping them to learn and apply both project management and technical skills.
3. Provide an increasing number of UT Austin faculty with course related, technology based instructional resources that positively impact students.
4. Provide program satisfaction for faculty clients and student developers by providing technical, administrative and managerial support.

Program Timeline

According to the published 2004 ~FAST Tex program timeline (Table 1), a call for proposals was sent to UT Austin faculty in late September 2003 with an October 22nd deadline. In early November, faculty clients were notified whether their proposal had been accepted. Three faculty orientation sessions were also conducted in November. Student interviews, project appointments and orientation sessions took place during November and December 2003 and January 2004. February 1st was set as the target begin date for all projects with May 31st set as the target completion date.

Table 1 – ~FAST Tex 2004 Program Timeline

Date	Activity
September 23, 2003	Call for proposals
October 22, 2003	Deadline for proposal submission
November 2003	Faculty notified of proposal acceptance Faculty program orientation sessions.
November 2003 – February 1, 2004	Student selection. Student interviews Student project appointments Student program orientation sessions
February 1, 2004	All projects have begun
May 31, 2004	All projects complete

Program Facts

In 2004 the ~FAST Tex program funded 62 projects employing 48 student developers at a total cost of \$132,085. The 63 faculty applicants estimated that, once their projects are complete, 31,879 users would be served. The majority of these users will be UT Austin students. The types of projects funded ranged from the development of course websites to the creation of complex databases and instructional tools (see Table 15 for a summary of projects by product type). The program employed a part-time (75%) program manager and part-time (25%) program administrator. Table 2 summarizes these ~FAST Tex program facts for the 2004 program year (September, 2003-August, 2004).

Table 2 – ~FAST Tex 2004 Program Facts

Number of Projects	62
Student Developers Employed	48
Faculty Clients Served	63
End Users*	31,879
Program Staff (Full-Time Equivalency)	1
Total Program Cost	\$132,085

* Estimate based on figures from faculty proposals

Evaluation Description

Purpose of Evaluation

The purpose of evaluating the ~FAST Tex program is to assess the success of the program based on established program goals and gather information to inform future program implementation, changes and growth. In its first five years, the program had never been systematically evaluated.

Evaluation Plan

The evaluation plan has three phases: Short-Term Evaluation Plan Development (Phase I); Short-Term Evaluation Plan Implementation (Phase II); and Long-Term Evaluation Plan Development (Phase III). Phase I of the plan included meeting with program staff to determine project goals and program needs as well as the development of the Phase II plan. The Phase II plan included:

- Developing and administering an **online mid-term survey of students** currently participating in the program.
- Revising and administering existing **online faculty and student end-of-semester survey** instruments.
- Conducting a **focus group with student developers** currently participating in the program.
- Conducting an **audit of program outputs** such as on-time project completions, number of student hours, number of students served, project costs, etc.
- Conducting a **quality review of individual program projects** using a team of reviewers selected by evaluation and program staff.
- Writing a **program evaluation report** for the spring 2004 project cycle

Phase III consists of developing a longitudinal survey of faculty and student developers from past program years to assess program impact and the creation of a long-term evaluation plan for the program. This Phase is currently on hold pending the hiring of a CIT program evaluation staff person. A summary of the evaluation timeline is below (Table 3) and a description of each major task follows.

Table 3 – ~FAST Tex 2004 Program Evaluation – Summary Timeline

Begin Date	End Date	Phase/Major Task
1/28/04	2/11/04	Phase I: Develop Short-Term Evaluation Plan
3/5/04	8/30/04	Phase II: Implement Short-Term Evaluation Plan
3/5/04	4/15/04	Develop & Administer Mid-Term Student Survey
3/5/04	4/15/04	Conduct Student Focus Group
4/15/04	5/28/04	Modify & Administer End-of-Semester Student and Faculty Surveys
5/25/04	7/10/04	Conduct Program Outputs Audit
5/25/04	7/24/04	Conduct Quality Review of Individual Projects
Pending	Pending	Phase III: Longitudinal Study and Long-Term Evaluation Plan

Mid-Term Assessment

The mid-term assessments included a student developer focus group (see Appendix A) and an online student survey (Appendix B). The mid-term assessments gathered formative information to help

program staff identify resolvable issues during the 2004 program cycle, plan for the 2005 program cycle, and to inform the Student and Faculty Exit Surveys. The Student Focus groups and the Mid-Term Student Survey concentrated on the following areas:

- *Program issues identified by staff*
 - Students not utilizing CIT technical support
 - Compensation issues
 - Graduate student issues
 - On-time project completion
- *Issues that could be adjusted or resolved mid-program*
 - Project management issues
 - Faculty-student issues
- *Beginning of program events*
 - Application process
 - Orientation sessions
 - Kick-off meetings

Focus Group. Originally, both a graduate and undergraduate focus group were planned to help determine whether program issues for the two groups differed. The focus group protocol was designed to parallel the mid-term survey and add depth to those results. Other focus group questions were designed to allow participants to identify unforeseen issues. All ~FAST Tex student developers were invited to participate and offered three hours of wages (\$30-\$39 depending on their individual pay rate) to participate in a 1½-hour group discussion session. Due to insufficient response to the initial invitation, only one, eight-person focus group that mixed graduate and undergraduate students was conducted. The session occurred on March 31, 2004 from 2-3:15 p.m. and was recorded and transcribed. See Appendix A for a copy of the focus group instrument.

Mid-Term Student Survey. The focus of the mid-term survey was to assess beginning of program processes (application, orientation, and kick-off meetings), reasons for applying to the program, satisfaction with pay rate, program procedures (completing weekly logs and time sheets), and the use and satisfaction with CIT technical assistance and program management. All 48 student developers were invited to participate via email and given a link to the survey. Students also received two follow-up email reminders. The survey was accessible from March 22-30, 2004. See Appendix B for a copy of the survey instrument and response frequencies.

Results of both the focus group and mid-term survey were presented and discussed with program staff on April 15, 2004.

End-of-Semester Surveys

Faculty Client Survey. All 63 ~FAST Tex grant recipients were sent an email requesting that they complete an online survey to evaluate the program. Faculty also received two follow-up email reminders. The purpose of the faculty survey was to evaluate satisfaction with program staff, technical support from CIT, the ~FAST Tex website, project outcomes, and their student developers. Additionally, faculty were asked about project related challenges, likes, and dislikes. The survey was accessible from May 5-18, 2004. See Appendix C for a copy of the survey instrument and response frequencies.

Student Survey. All 48 ~FAST Tex student developers were sent an email requesting that they complete an online survey to evaluate the program. Students also received two email reminders. The purpose of the student survey was to evaluate satisfaction with program staff, technical support from CIT, the ~FAST Tex website, project outcomes, and their faculty supervisors. Students were also asked to identify what they had learned as a result of working on their projects, project-related challenges, and their likes and dislikes about the program. The survey was accessible from May 5-18, 2004. See Appendix D for a copy of the survey instrument and response frequencies.

Audit Measures

Program audit measures were developed in consultation with the program manager and data was provided to the evaluator by program staff. Measures included a complete listing of projects by product type, number of consulting hours, completion status, and estimated number of end users. Information on personnel and other program costs was also collected, as was demographic information on faculty and student developers.

Project Quality Review

The purpose of the project quality review was to provide information about the quality of program outputs (i.e., projects). The review plan consisted of reviewing all 2004 ~FAST Tex projects completed by the May 31, 2004 deadline. However, of the twenty-two projects completed on time, it was technically feasible to review only fifteen or 24% of all projects.

Each of the six reviewers reviewed five ~FAST Tex Projects using the review criteria and form provided (see Appendix XX). Two reviewers reviewed each project—one reviewer with a technical background (Reviewers A-C) and one reviewer with an instructional background (Reviewers D-F). Each technical reviewer was paired with each instructional reviewer at least once. Table 4 depicts the reviewer pairs and the projects assigned to them. Reviewers attended a one-hour training session on June 17, 2004 where the review process was explained and the rating scale and criteria items discussed. Project reviews occurred June 17-24, 2004.

Table 4 – Reviewer assignments to projects

Reviewer	Project														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	X			X			X			X			X		
B		X			X			X			X			X	
C			X			X			X			X			X
D	X	X	X	X	X										
E						X	X	X	X	X					
F											X	X	X	X	X

Reviewers rated projects on their design and function (4 items), instructional value (4 items) and project objectives (2 items) using a ten-item review instrument. Ratings were based on a five-point scale ranging from “Poor” to “Exemplary” (see p. xx). A design and function category score was calculated for each reviewer on each project by averaging the four item scores in that category. Both reviewers’ category scores were then averaged to produce the project’s composite score for the category. The same

process was used to calculate instructional value category and total scores for each project. Composite scores were calculated as follows:

Design & Function Combined Score Mean =
(Sum of Design And Function Score Mean for both reviewers)/2

Instructional Value Combined Score Mean =
(Sum of Instructional Value Score Mean for both reviewers)/2

Total Combined Score Mean =
(Sum of Total Score Mean for both reviewers)/2

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Findings and Conclusions

Student Developers

Mid-Term Assessment Findings:

The mid-term findings are based on a survey (n=23 for a response rate of 48%) and focus group (n=8) of ~FAST Tex student developers. Although neither the survey sample nor the focus group participants are representative of ~FAST Tex student developers as a whole, the two samples are complementary in that international graduate students were overrepresented in the focus group and the survey sample contained a higher proportion of undergraduates who are U.S. citizens. Females were overrepresented in both study samples. Table 5 provides a comparison of the two samples with the 2004 ~FAST Tex student developer population. Additionally, most (75%) focus group participants were assigned to multiple projects, which is not typical. A summary of the mid-term assessment findings follows.

Table 5 – Mid-Term Assessment Sample Characteristics

Characteristic	Focus Group	Mid-Term Survey Sample	All 2004 ~FAST Tex Student Developers
Mean Age	27	23	24
% Female	38	22	15
% International Students	75	44	54
% Graduate Students	75	34	40
Number	8	23	48

1. *Students like working in the ~FAST Tex program for the following reasons:*
 - Flexibility of hours – the focus group participants in particular mentioned this benefit.
 - Opportunity to learn new skills/information – Students saw the acquisition of technical skills to be beneficial and seemed to enjoy learning about content areas unrelated to their academic field.
 - Employment/Income – Survey results in particular indicated that student developers viewed the employment and pay offered by ~FAST Tex as important reasons for applying. International students in the focus group stated that it was one of the few employment opportunities on campus they were eligible for and, although they would like a higher pay rate, they viewed the current rate as competitive.
2. *Study participants reported general satisfaction with the application process, but did suggest some improvements such as:*
 - Making the application shorter.
 - Allowing applicants to “save” information periodically throughout the application.
 - Publicizing program/positions more widely. All the focus group students said they found out about the positions through word-of-mouth.

3. *Response to the orientation sessions were mixed:*
 - Only half of survey respondents reported attending an orientation session with the most common reasons for not attending being scheduling conflicts and being hired after the sessions occurred.
 - Students, who did attend, found the orientation helpful. Only two of the students surveyed who had attended the session (n=11) said “Not sure” (a neutral response) with the remaining responses being positive.
 - Suggested improvements to orientation included:
 - Providing examples of past projects.
 - Making the orientation more interactive.
4. *Students viewed the kick-off sessions as useful.*
 - 83% of survey respondents reported participating in a kick-off session and considered it to be useful. The two respondents that did not attend a session reported already knowing the professor.
 - Focus group participants also thought the sessions were very useful because they helped to establish parameters for projects and improved student and faculty understanding of their responsibilities.
 - Focus group participants felt additional joint sessions with a CIT staff member present would be beneficial (e.g., a mid-term meeting).
5. *Only 39% of surveyed students report that they “Always” completed their weekly log.* Reasons for not completing logs included:
 - Not understanding the process
 - Not keeping track of hours
 - Not having time to complete logs
6. *Most students did not experience technical difficulties.*
 - Focus group participants stated they often figured out problems on their own.
 - Most students who did experience technical difficulties consulted with CIT staff to resolve them. A couple of focus group participants said they were initially unaware of the variety of expertise/individuals available to them.
7. *Students gave only positive feedback about program staff.*
 - Nearly all survey respondents reported it was easy to contact program staff. Only one individual reported that found contacting program staff “Somewhat difficult”
 - Focus group participants thought Suzanne Rhodes’ ability to mediate between themselves and faculty was important. These students saw this as one of Suzanne’s most critical roles and wanted her present at more project meetings with faculty.
8. *Nearly all surveyed students anticipated completing their projects on time.* However, many of the focus group participants had concerns about an end-of-semester “crunch” and feared a “perfect storm.” Part of the anxiety among focus group participants may be due to the fact that nearly all of them had multiple projects. There also seemed to be a consensus among focus group participants that one semester was not enough time to complete a project especially if it began late (after February 1). Participants suggested that beginning the project planning process during the fall semester would help mitigate this difficulty.

9. *Difficulty in negotiating projects with faculty* emerged as an issue during the focus group. Participants noted the following problems:
- Faculty members may come into the project under prepared or without a clear idea of the end product.
 - Faculty members often assume students understand content even when it is outside of their field of study.
 - Faculty members often ask students to do work that is outside of their job description.
 - It is difficult for students to set boundaries with faculty or to tell them “no” when necessary. Students often relied on the program manager, Suzanne Rhodes, to do this.

End-of-Semester Survey Findings:

Of the 48 student developers participating in the program, twenty-seven completed the end-of-semester survey for a 56% response rate. The **students sampled** came from a wide range of academic areas¹ including Computer Science (9), Engineering (4), Communications (3), Liberal Arts (2), Information Science (2), Business (2), Fine Arts (1), Architecture (1), and Education (1). The students sampled were generally representative of all ~FAST Tex student developers with the exception of international students being underrepresented. Twenty of the respondents (74%) worked on a single ~FAST Tex project while six (22%) worked on two projects and one (4%) worked on three projects (35 projects total). The percentage of respondents who worked on multiple projects is less for the sample than for the student developer population as a whole. Table 6 provides a comparison of the survey sample and the population of ~FAST Tex student developers.

Table 6 – End-of-semester student survey sample characteristics

Characteristic	End-of-Semester Student Sample	All 2004 ~FAST Tex Student Developers
Mean Age	24	24
% Female	15	15
% International Students	37	54
% Graduate Students	41	40
% Multiple projects	26	38
Number	27	48

Nearly all student developers (95%) who received **project assistance** from CIT rated it as “Excellent” or “Good.” Six (22%) of the respondents did not request any project assistance from CIT on any of their projects. Another resource for student developers was the **~FAST Tex website**. Thirty percent of respondents reported using the site 1-4 times per week, 41% reported using it 1-3 times per month, and 15% reported using it 1-2 times during the semester. Eleven percent of respondents indicated that they never used the site. Of the respondents who used the site, 63% thought it was “Very easy” or “Easy” to use while a third were “Not sure.” Only one individual indicated that the site was “Difficult” to use. Further analysis did not indicate a relationship between ease of use and frequency of use. Suggestions

¹ Numbers in parenthesis indicate frequencies for each academic area.

for improving the online system included adding the function of an online timesheet and allowing the editing of submitted logs.

When asked **what they liked**² most about their ~FAST Tex experience, student developers most frequently reported the opportunity to learn new skills (9) and the flexible hours (7). Enjoying the work (2), pride in producing a useful tool (2), gaining confidence in their own abilities (1), and working with CIT staff (2) were also mentioned. Most student developers (63%) anticipated participating in the program next year (2005) with those saying no giving graduation as their reason. **Dislikes**³ about the ~FAST Tex experience included difficulty in completing progress reports (3), difficulty in getting faculty feedback or instruction (3), the challenge of learning new technical skills (2), time management problems (2), and getting a late start (2).

Student developers were asked to indicate what **skills they had learned** as a result of working on their ~FAST Tex projects. As shown in Table 7, high percentages (60-71%) of students reported learning project and time management skills and how to interact with clients/faculty. A smaller percentage of students (20-46%) reported learning technical types of skills such as a specific software, technical process, or piece of equipment. More students reported learning information unrelated to their field of study (31%) than learning information related to their field of study (20%). Only nine percent of respondents indicated they did not learn anything new as a result of participating in the program.

Table 7 – Skills learned by ~FAST Tex student developers

Skill Learned	% Yes
Project management skills	71
How to interact with clients/faculty	66
Time management skills	60
A specific piece of software (e.g., Dreamweaver, Photoshop)	46
Information unrelated to my major/professional field	31
A specific technical process (e.g., video streaming, creating a website)	29
A specific piece of equipment (e.g., video camera, scanner)	20
Information directly related to my major/professional field	20
I did not learn anything new as a result of working on my ~FAST Tex project	9

Student developers reported experiencing a variety of **challenges**. The most frequently cited challenge was getting a late start (after February 1) on their projects. Students also frequently indicated that they experienced technical difficulties, time management difficulties and difficulties with faculty supervisors including not receiving clear direction and problems with getting necessary content materials. A complete listing of project related challenges experienced by student developers is provided in Table 8.

² Open-ended responses to the question “What did you like most about your ~FAST Tex experience this semester?” are reported as frequencies since respondents often gave multiple responses.

³ Open-ended responses to the question “What did you like least about your ~FAST Tex experience this semester?” are reported as frequencies since respondents often gave multiple responses.

Table 8 – Project-related challenges experienced by student developers

Challenge	% Yes
Getting started late (after February 1)	46
Technical difficulties	29
Unclear direction from faculty supervisor	26
Time management difficulties	23
I did not experience any project-related challenges	20
Difficulty in getting necessary content material from faculty supervisor	17
Faculty supervisor was unprepared/disorganized	6
Unfamiliar with content material for project	6
Unclear division of responsibilities between myself, faculty supervisor and CIT	3
Unclear direction from ~FAST Tex program staff	3
Lacked adequate technical skills	3
Difficulty in communicating with faculty supervisor	0

Because the challenges listed in the survey were, in part, derived from student feedback received during the mid-term focus group, it was somewhat surprising that these challenges were not reported more frequently by the end-of-semester survey sample. Similarly, survey questions directly related to the **ease of contacting faculty and obtaining content from them** indicated that most students (66-94%) experienced no difficulties in these areas. Additionally, all respondents rated the **ability of their faculty supervisor to manage the project** as “Average” or better. One possible explanation for this is that the majority of focus group participants worked on multiple projects and thus experienced more challenges in greater frequency than did students working on a single project. To further explore this possibility, the frequency of project challenges was compared for student developers with single projects and those with multiple projects. The results of this comparison are shown in Table 9.

Table 9 – Comparison of project challenges experienced by student developers with single and multiple projects

Challenge	20 Single Projects (% Yes)	7 Multiple Projects (% Yes)
Getting started late (after February 1)	50	57
Technical difficulties	30	43
Unclear direction from faculty supervisor	25	57
Time management difficulties	35	14
Difficulty in getting necessary content material from faculty supervisor	15	43
Faculty supervisor was unprepared/disorganized	0	29
Unfamiliar with content material for project	10	0
Unclear division of responsibilities between myself, faculty supervisor and CIT	5	0
Lacked adequate technical skills	5	0

Student developers working on **multiple projects** clearly experience challenges more often. They more frequently reported getting a late start on their projects, experiencing technical difficulties, and having problems receiving direction and materials from faculty. Paradoxically, however, students with multiple projects reported having time management difficulties *less* frequently than did students with only one project.

Student Developer Conclusions:

- Student developers like participating in the ~FAST Tex program because of the flexible nature of the work hours and the opportunity to learn new skills. Dislikes include administrative application and time-keeping procedures.
- Student developers who received project assistance from CIT staff rated it positively. Nearly a quarter of students did not request project assistance from CIT staff.
- Most student developers do not complete activity logs regularly.
- Most student developers (70%) do not use the ~FAST Tex website on a weekly basis. Weekly use is ideal given their requirement to complete weekly activity logs and keep accurate time sheets.
- Nearly all student developers report learning a variety of technical (e.g., hardware, software) and non-technical skills (e.g., project, time and client management) as a result of participating in the program with the learning of non-technical skills being reported more frequently.
- Student developers with multiple projects are more likely to experience challenges than single project students. These challenges are likely due to the complexities of managing multiple projects and beginning one or more of the projects late. Interactions with faculty in particular appear to present more challenges when students work on multiple projects. However, students with multiple projects report time management as being a challenge *less* frequently compared to students working on only one project.

Faculty Clients

End-of-Semester Survey

Of the 63 faculty clients participating in the program, thirty-nine completed the end-of-semester survey for a 62% response rate. The **faculty sample** represented a wide range of academic areas. Table 10 shows a breakdown of the faculty sample by college/school. Compared to all faculty clients participating in the program in 2004, the survey sample underrepresented faculty from colleges with the highest representation in the program (Education, Liberal Arts, Engineering, Natural Sciences). Slightly over half (51.3%) of respondents were female with nearly equal numbers being Lecturers (9), Assistant Professors (10), and Professors (10). Five respondents reported being Associate Professors, and five held various university staff or administrative positions.

Of the faculty who reported receiving **project assistance** from CIT (n=34), 77% rated CIT project assistance as “Excellent” with an additional 9% rating it as “Good” and another 9% rating it as “Average.” Only 3% felt CIT project assistance was either “Fair” or “Poor.” Suggestions for improving project assistance included starting projects earlier in the semester, selecting more reliable/capable student developers, and expanding the scope of the program to include multiple semesters or more student hours.

Table 10 – College/School of faculty survey respondents

Sample			Program
College/School	Number	Percent	Percent
Liberal Arts	10	26	22
Engineering	6	15	14
Natural Sciences	6	15	9
Education	4	10	33
Fine Arts	2	5	4
Business	1	3	3
Social Work	1	3	6
Other	5	13	9
No response	4	10	--
Total	39	100	100

Most faculty (69%) found the ~FAST Tex website either “Easy” or “Very Easy” to use with 18% reporting the site to be “Very Difficult” to use and an additional 13% being “Not Sure” or providing no response. Only a quarter of the faculty used the website to monitor their student developer’s progress or hours with 46% being unaware of this feature.

When asked about **project-related challenges**, 44% of faculty reported getting a late start (after Feb 1) as a challenge while 23% identified technical and time management difficulties. Additionally, 18% reported difficulty in getting necessary content material to student developers and 13% indicated they had project management difficulties. This response pattern is very similar to student responses to the same questions as shown in Table 11.

Table 11 – Project-related challenges experienced by faculty and student developers

	Faculty % Yes	Students % Yes
Getting started late (after February 1)	44	45
Difficulty in providing/receiving content material	18	17
Unclear division of responsibilities	3	3
Unclear direction from ~FT staff	0	3
Technical difficulties	23	29
Time management difficulties	23	23
No challenges experienced	23	20
Number of respondents/projects	39	35

Less than half (44%) of faculty surveyed anticipated **completing their project on time** (by May 31). Those that did not anticipate an on-time completion most frequently cited projects becoming larger or more complex than originally anticipated, technical difficulties, or difficulties with student developers (poor communication skills, inadequate technical skills, assignment to

multiple projects) as reasons. **Faculty dislikes**⁴ about the program included the limitation of 100 hours of student developer time per project (6), unreliable student workers (5), the short, one semester time frame (2), and getting a late start (2).

When asked **what they liked**⁵ about the ~FAST Tex program, many faculty (14) commented on the excellent assistance they had received from program or CIT staff with half of these identifying the program manager, Suzanne Rhodes, by name. Faculty also cited working with student developers (8), the ability to accomplish a necessary task (6), the program's concept of pairing faculty and students to create technology-related instructional resources (6) and receiving technical assistance (4) as things they liked most about the program. The majority of faculty surveyed (69%) anticipated that the finished project would meet their expectations with the remaining respondents preferring to withhold judgment until their project was complete.

Faculty were also asked to **evaluate student developers** in the areas of communication, technical ability, quality of work, and supervision needs. Eighty percent of faculty reported that contacting and getting a response from student developers was either "Very easy" or "Somewhat easy" with 80% also rating the communication ability of their student developers as "Good" or "Excellent." However, 8% rated the communication ability of their student developers as "Fair" or "Poor." Both faculty and students reported using email or telephone as their primary communication method. Two-thirds of the respondents rated their student developer's ability to meet deadlines as "Excellent" or "Good" with 13% giving a rating of "Fair" or "Poor." Most faculty (77%) seemed pleased with the quality of student developer work by giving ratings of "Average," "Good," or "Excellent" while 8% gave ratings of "Fair" or "Poor." Six respondents (15%) gave no quality of work rating.

Faculty were also asked how much **supervision** they provided to their student developer and how much supervision they thought their student developer needed using the following scale:

- Extensive:** Met or communicated with 3 or more times/week.
- Frequent:** Met or communicated with 1-2 times/week.
- Occasional:** Met or communicated with once every other week.
- A little:** Met or communicated with once a month.
- None/almost none:** Met or communicated with once or twice during the project.

Response frequencies (see Appendix C) were similar for both questions with nearly half (49%) of all respondents indicating that they provided "Occasional" supervision and their student developers needed "Occasional" supervision. No faculty reported providing "Extensive" supervision, but 8% did report providing "None/almost none." The similarity in responses between the two questions, however, seemed counter to some of the qualitative responses indicating difficulties in managing student developers. A cross-tabulation of the two sets of responses yields a slightly different picture.

⁴ Open-ended responses to the question "What do you like least about the ~FAST Tex program?" are reported as frequencies since respondents often gave multiple responses.

⁵ Open-ended responses to the question "What do you like most about the ~FAST Tex program?" are reported as frequencies since respondents often gave multiple responses.

As Table 12 indicates, 37% of faculty reported providing more supervision to their student developers than they thought was needed while 20% of faculty provided less supervision than they thought their student developer needed. Thus, over half of faculty respondents (57%) provided a level of supervision that was either more or less than they thought necessary.

Table 12 – Supervision Provided by Supervision Needed – Faculty Responses

Supervision Provided	Supervision Needed					Total
	Extensive	Frequent	Occasional	Little	None	
Extensive	0	0	0	0	0	0
Frequent	0	1	5	1	0	7
Occasional	0	2	12	4	1	19
Little	1	1	1	2	2	7
None	1	0	1	0	0	2
Total	0	8	10	12	5	35

- 13 (37%) Faculty who provided more supervision than they thought their student needed.
- 7 (20%) Faculty who provided less supervision than they thought their student needed.
- 15 (43%) Faculty who provided the same amount of supervision as they thought their student needed.

Student developers were asked parallel questions in their exit survey using the same scale. Unlike faculty responses, student responses to these questions were more varied with 31% saying they received “Frequent” supervision, 40% responding “Occasional,” 23% “A little” and “Extensive” and “None/almost none” receiving 3% each. Student self-assessment of supervision needed was also more dispersed among the categories with 23% saying they needed “Frequent” supervision, 29% “Occasional” supervision, 34% “A little” supervision, and 14% “None/almost none.” As with the faculty questions, a cross-tabulation of the two student developer questions provides a more complete picture (Table 13).

Table 13 – Supervision Received by Supervision Needed – Student Responses

Supervision Received	Supervision Needed					Total
	Extensive	Frequent	Occasional	Little	None	
Extensive	0	0	0	0	1	1
Frequent	0	1	2	4	1	8
Occasional	0	2	4	6	2	14
Little	0	5	3	2	1	11
None	0	0	1	0	0	1
Total	0	8	10	12	5	35

- 17 (49%) Students who received more supervision than they thought they needed
- 11 (31%) Students who received less supervision than they thought they needed
- 7 (20%) Students who thought they received the appropriate amount of supervision

An even higher percentage of students (80%) reported receiving either more or less supervision from faculty than they thought they needed with nearly a third (31%) reporting that they received an inadequate amount of supervision from faculty (less than they thought they needed). Twenty percent of student respondents thought they received the appropriate amount of supervision from faculty.

Faculty Client Conclusions:

- Faculty are generally satisfied with both the technical and program assistance they receive from CIT. The program manager, Suzanne Rhodes, was often singled out for praise.
- Faculty do not currently use the ~FAST Tex website to its full potential and need to receive more instruction on its use and features.
- Beginning projects late (after February 1) is the challenge most frequently cited by faculty and is likely contributing to projects being completed after May 31. It may also be contributing to project management difficulties and the feeling that the project time frame of one semester is inadequate.
- Other project related challenges for faculty include technical difficulties, time management difficulties, and difficulty getting content to student developers. Students reported these same difficulties in similar proportions.
- Most faculty are satisfied with their student developer's ability to communicate, provide technical assistance, meet deadlines, and do quality work. A few, however, report dissatisfaction in one or more of these areas. Such dissatisfaction might be alleviated through closer monitoring of projects by program staff.
- A large proportion of both faculty and student developers report providing/receiving inappropriate levels of supervision. An inadequate level (less than what is needed) of supervision by faculty is likely a contributing factor to project challenges such as communication, work quality, the ability to meet deadlines and projects meeting faculty expectations.

Program Outputs

The evaluation sought to assess program outputs in two ways. First, through a program audit that compiled quantifiable output measures such as number of projects completed, types of products produced, amount of consulting time used, and various program costs. Second, evaluators conducted a quality review of completed projects. The findings from these two approaches are presented below.

Audit Results

A total of 66 project proposals were received from faculty in October 2003. Of these, 64 (97%) were accepted as ~FAST Tex projects. Two of the 64 accepted projects were never begun by the faculty client. One project was cancelled as a ~FAST Tex project when an alternative funding source was identified.⁶

The target end-date for all ~FAST Tex projects is May 31 of each program year and one of the central goals of the program is to have all **projects completed on time** (i.e., by May 31). In 2004 only 22 (35%) of all projects were completed on time with an additional 17 (27%) completed during the summer (June 1-August 31, 2004). As of September 15, 2004, 22 (35%) of the projects remained incomplete with 13 granted extensions through Fall 2004 and another 6 extended to the 2005 program year (Spring 2005). One project was cancelled. Table 14 summarizes these findings.

⁶ This project is included in all 2004 program statistics since program funds were expended.

Table 14 – Number and percent of projects by completion status*

Completion Status*	Number	Percent
Completed by May 31, 2004 (on time)	22	35
Completed June 1 through August 31, 2004	17	27
Incomplete – extended through Fall 2004	13	21
Incomplete – extended to 2005 program year	6	10
Incomplete – status unclear	3	5
Cancelled	1	2
Total	62	100

* Completion status as of September 15, 2004

The completion of a single project often involves the development of several **products** to make it fully functional. For example, a web-based lab simulation may involve the development of a database, animated images requiring 3D programming, and a web interface. Other projects, however, may only require web development or simple programming. Table 15 shows the number of ~FAST Tex projects using each product type. The most frequently produced product type is web development. Almost 40% of projects involved web development with 24% creating some type of video product and 18% creating a database. Other types of products include 3D programming, authoring, handheld programming, instructional design, requirements/design documentation, and audio.

Table 15 – Number of projects by product type

Product Type	Number of Projects*
Web Development	46
Programming	24
Video	15
Database	11
3D Programming	3
Authoring	3
Handheld Programming	1
Instructional Design	1
Requirements/Design Documentation	1
Audio	1

* Projects may have multiple product types

By grouping projects according to the primary product activity, it is possible to examine some key characteristics of each **product type**. As shown in Table 16, Web development is the most common product type and has the lowest average consulting costs (\$4/project) and highest percentage (47%) of completed projects. In contrast, database development has the highest average per project consulting cost (\$46/project) and the lowest percentage of on time completions (18%). Both of these product types had the highest number of estimated end users.⁷ The “Other” category includes an authoring project, an audio/web development project, and a

⁷ Number of end users based on faculty estimates reported in program application.

requirements design project. The requirements design project alone accounted for \$672 (82%) of the \$816 in consulting costs for this category.

Table 16 – Project characteristics by project type

Project Type (primary activity)	# of Projects	Cost of CIT Staff Consults	Estimated # of End Users*	Consulting Costs per Project	Projects Completed On Time
Web Development	17	\$72	12,248	\$4	47%
Programming	16	\$588	2,783	\$37	38%
Video	15	\$696	1,998	\$46	33%
Database Development	11	\$528	11,640	\$48	18%
Other	3	\$816	3,020	\$272	33%
Total	62	\$2,700	31,689	\$44	35%

* Number of end users based on faculty estimates reported in program application.

Project Quality Review

Of the twenty-two projects completed by May 31, it was technically feasible to review only 15 (68%) of these or 24% of all projects. Reviewers rated projects on ten criteria (Table 17) using a five-point scale (Table 18).

Table 17 – Review criteria items for project quality review

I. Project Objectives
a. Rate the clarity of the project objectives.
b. Rate the degree to which project objectives were met given program parameters (i.e., was it likely that project goals could be accomplished in 4 months using 100 hours of labor).
II. Design & Function
a. Rate the overall design of the product (e.g., use of color; look; attractiveness).
b. Rate the functionality of the product (e.g., does it do what it is supposed to do; is the content well organized; is the architecture/layout easily understood).
c. Rate the usability of the product (e.g., ease of navigation; ease of use).
d. Rate the scalability/reusability of the product (e.g., is there potential for other application; is it adaptable to other uses; can its scope be expanded).
III. Instructional Value
a. Rate the product’s ability to solve or address a pedagogical problem (e.g., to what extent does it assist in the learning of content; how does it improve learning).
b. Rate the product’s ability to support instructional best practices (e.g., student centered, active learning, collaborative learning, multiple modes of learning).
c. Rate the product’s ability to present content (e.g., organization, clarity, depth; to what extent does it expand access to content).
d. Rate the overall instructional value of the product.

Table 18 – Rating scale for project quality review items

<p>1 = Poor – Unacceptable or unusable. No project objectives met. 2 = Fair – Needs work. Below average. Few project objectives met. 3 = Satisfactory – Just O.K. Average. Some project objectives met. 4 = Good – Impressive. Above average. Most project objectives met. 5 = Exemplary – The ideal. Meets all project objectives or goes beyond them.</p>
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As shown in Table 19, Total Combined Score Means ranged from 1.75 (Fair) to 4.40 (Good) with the **average quality rating** for all projects reviewed being 3.22 (Satisfactory). Similarly, the Design and Function Combined Score Means ranged from “Fair” (2.13) to “Good” (4.13) with the average design and function rating for all projects being “Satisfactory” (3.16). In the Instructional Value category, Combined Score Means ranged from 1.25 (Poor) to 4.50 (Good/Exemplary) with the average instructional value rating for all projects reviewed being 3.18 (Satisfactory). For most projects, the Design and Function and Instructional Value Combined Score Means had a difference of 0.50 or less. The “Handbook of Diction for Singers” project is the only exception to this pattern. See Appendix E for individual item/reviewer ratings for each project.

Table 19 – Quality review combined scores by project

Rank*	Project Title	Design & Function Combined Score Mean	Instruct. Value Combined Score Mean	Total Combined Score Mean
1	Mentoring Book Talks Online	4.13	4.50	4.40
2	Shakespeare Studies At UT Austin	3.75	4.25	3.90
3	Fishes Of Texas Web Database	3.75	3.38	3.75
4	Jenseits Der Stille Website	3.25	3.75	3.60
5	Child Rearing Simulations	3.50	3.75	3.60
6	Online Academic Research Community	3.88	3.13	3.60
7	Rigid Body Motion Simulation	3.38	3.63	3.60
8	Teaching Teams Program Website	3.00	3.50	3.30
9	Biomechanical Analysis Of Human Movement	3.00	3.13	3.15
10	Cold Reading Experiment	3.13	2.88	3.05
11	Dynamic Statistics Study Questions	2.88	3.25	2.90
12	Books R4 Kids	3.00	2.50	2.80
13	Virtual Manipulatives For Math	2.38	3.00	2.70
14	Engineering Communication For Aerospace	2.25	1.75	2.20
15	Handbook of Diction For Singer	2.13	1.25	1.70
Average		3.16	3.18	3.22

* Rank based on Total Combined Score Mean

Program Output Conclusions:

- Only a third of projects were completed on time. Even with an additional 27% completed prior to the end of the program year (August 31, 2004), a third of projects remain incomplete. The late completion of projects is at least partially due to projects being started late (after February 1). Other contributing factors may include project management issues between faculty and students and improper scoping of projects when they are accepted.
- Projects involving web development and/or programming require the fewest consulting resources and have the highest percentage of completed projects and thus seem best suited to the program. More complex projects involving database development, video, audio, or requirements design require more consulting time and have average to below average completion rates. Some types of projects may not be suitable for inclusion in the program due to their complexity, technical difficulty, or long time-line.
- Overall, the quality of completed projects is only average and none of the projects was rated “Exemplary.” Although it is not completely clear why projects are not of a higher quality, one possible explanation is that many projects did not have clearly stated instructional objectives. This, however, does not explain the mostly average to below average ratings given in the Design and Function category.

Meeting Program goals

Based on the above findings and conclusions, the ~FAST Tex program met some but not all of its program goals in 2004. Specifically, the findings support the following goal-related conclusions:

- 1. Realize 100% project success as measured by all projects being completed on time (by May 31); on budget (100 hours of student work); and meeting the individual project goals set by faculty.**

This goal is largely unmet given that only a third of the projects were completed on time and a third of the projects have been extended into Fall 2004 or Spring 2005. Projects extended after August 31, 2004 will likely exceed their original budgets of 100 hours of student work. It is less clear whether projects completed between May 31 and August 31, 2004 were within budget. According to the faculty survey, 69% of respondents reported that their projects met their expectations. However, some of those indicating “No” or providing no response stated that they were waiting for the completion of their project to determine whether it met their expectations. Additionally, it is difficult to determine whether individual project goals are being met when many project applications do not contain clearly stated objectives.

- 2. Prepare students for work after graduation in helping them to learn and apply both project management and technical skills.**

Goal met. Students overwhelmingly reported learning both project management and technical skills as a result of participation in the ~FAST Tex program. Somewhat surprisingly, student developers report learning project management skills more frequently than technical skills. Only two students (7%) indicated they did not learn anything new.

3. Provide an increasing number of UT Austin faculty with technology based instructional resources that positively impact student for use in their courses.

Unknown. To determine the impact of ~FAST Tex projects on faculty and student users requires a longitudinal study of past projects (Phase III). Such a study might include surveying past faculty clients, students who have used products developed through ~FAST Tex projects, and usage data for the products.

4. Provide program satisfaction for faculty clients and student developers by providing technical, administrative and managerial support.

Goal met. Nearly all (97%) students and faculty rate the technical, administrative and managerial support they received from program and CIT staff as “Good” or “Excellent.” Both groups repeatedly singled out the program manager, Suzanne Rhodes, for praise.

Overall, the ~FAST Tex program is successful in its core goals of providing a learning experience for its student developers and in providing technical, administrative and managerial support to faculty clients and student developers. However, there do appear to be some challenges with project quality and the timely beginning and completion of projects with late projects likely exceeding their budgets. These problems are at least partially related to the program’s short operational timeline and program staff’s limited ability to oversee project progress. Recommendations for improving the program follow.

~FAST Tex 2004 Program Evaluation Report

Recommendations

The following recommendations are all interrelated and will be most useful if considered holistically. Based on the above findings and conclusions, it is recommended that DIIA/CIT leadership and ~FAST Tex program staff considers the following:

1. **Increase Program Support Staff** – One part-time (75%) program manager and one part-time (25%) program administrator do not appear to be adequate to process, train and manage 62 projects, 63 faculty clients and 49 student developers. Understaffing is likely contributing to late start dates for some projects and oversight issues (see below) on others. Hiring an additional program manager and increasing the program assistant position to half-time would allow program staff to consult with faculty more closely during the application process, improve the speed at which student developers can be hired and assigned to projects, and allow for additional project oversight. Such improvements would likely increase the on time completion rate of projects, reduce challenges, and improve project quality. An alternative to hiring additional staff would be to reduce the number of projects accepted during a single program year to 40-50 projects.
2. **Refine the Proposal Process** – The project proposal process used in 2004 made only general requirements of faculty applicants in terms of stating objectives and outcome measures and specific criteria for selecting projects for inclusion in the program are unclear. Program staff should consider refining the proposal process by:
 - a. ***Making proposal forms more structured*** by specifically requiring faculty to state clear project objectives (specific tasks to accomplish), instructional objectives (how will the technology/tool improve instructional outcomes), and precise outcome measures (how will you know if objectives are met). Having clearly articulated objectives and outcome measures will help faculty to better understand the informational, technical, and human requirements for their project and will likely improve their ability to manage them. Clearly stated objectives and outcome measures will also help program staff to evaluate the appropriateness of projects prior to acceptance and the success of projects upon completion. Program staff should also assist faculty individually during the application process to help them establish realistic objectives and outcome measures.
 - b. ***Establishing clear and measurable acceptance criteria for proposals.*** Each proposal should be systematically evaluated according to established criteria and the decision to accept a project into the program should be based on this evaluation. In particular, program staff should consider potential consulting costs, difficulty level, scope, and the cost per potential user when evaluating project applications.

3. **Refine the Orientation Process** – The evaluation findings suggest several refinements to the orientation process. First, a program manager should attend all kickoff meetings even when the faculty client and student developer have a previous relationship. This will help to clarify the roles for all parties and provide an opportunity to review project objectives, outline roles and tasks, and establish a realistic timeline. Second, orientation sessions should be made mandatory for all student developers no matter when they are hired (e.g., if students are hired “late” then there needs to be a scheduled orientation session for them). Individual orientation meetings should be scheduled with each faculty client to review program guidelines, processes, and services. Finally, both faculty clients and student developers should be provided with some instruction in the management of technology related projects. This document could take the form of a “tip sheet” or a more formal tutorial.

4. **Improve Project Oversight** – Several of the findings related to project quality, on time completion, and faculty-student challenges suggest that project oversight could be improved. The recommendations outlined below would help program staff to anticipate potential project challenges and troubleshoot existing difficulties. Specifically, project progress should be more systematically monitored and faculty clients should be required to complete an end-of-project report.
 - a. **Increased monitoring of project progress** could be accomplished in several ways. One way to assess progress would be for the program manager to have a mid-project progress meeting with faculty clients and their student developers. Such a meeting would provide valuable information as to project progress and assist student developers in managing their project. Based on the focus group discussion, most student developers would welcome such a meeting. Mandating and enforcing the timely completion of weekly activity logs by student developers would also help program staff monitor project progress. Integrating the activity logs with student developer time sheets would not only link the two processes but also create efficiencies for students and program staff. Finally, program staff could use the mid-semester meeting and student activity logs to track project milestones using a spreadsheet. Data from consulting logs could also be integrated into the spreadsheet. Implementing any of these recommendations will require the hiring of additional program staff.

 - b. **Requiring faculty to complete an end-of-project report** would help program staff to evaluate both project and program success by providing information on project goal attainment, accomplishments, and challenges. Developing a form for this purpose would help faculty in providing the most relevant information to program staff. Giving this form to faculty upon acceptance into the program would provide them the opportunity to keep track of information during the project and might also assist them in their supervision duties. Finally, if all faculty were required to complete the form as part of receiving a ~FAST Tex grant, there would be no need for faculty to complete an end-of-semester survey.

- 5. Improve Project Quality** – A review of completed projects found that, overall, project quality was only “Satisfactory” or average and no projects were rated as “Exemplary.” In 2004, 97% of all proposals were accepted as projects. To improve project quality, program staff should consider being more selective in choosing projects for the program by avoiding projects that are overly ambitious (inappropriate scope), require technical skills beyond the capabilities of student developers, or have unclear or vague instructional objectives. Assigning student developers to only one project at a time could also improve project quality. By allowing students to focus on a single project they may be better able to produce quality work and avoid the challenges associated with multiple projects. If students successfully completed a project early in the program cycle, they could be assigned to assist on another project as a way to reward quality work. Program staff may also want to consider hiring a pool of experienced student developers to act as “specialists” on multiple projects. For example, a student with exceptional skills in video editing may be assigned to complete this type of task on two or three projects during the course of the program year. Taking the recommended steps to improve project oversight should also help to improve project quality.
- 6. Modify Program Cycle** – Given that only a third of all projects were completed on time, many projects were begun late, and both students and faculty indicated that a 4 month time frame was inadequate, program staff and division leadership should consider making significant modifications to the program cycle. Recommendations focus on beginning the program cycle earlier and making project begin and end dates flexible.
- a. Beginning the program cycle earlier* includes calling for proposals at the *beginning* of the Fall semester (late August) with a September 30th deadline; make award decisions by October 15th; conducting faculty orientations in November and December; and hiring and orienting students November 1-January 15.
 - b. Flexible project begin and end dates should be allowed* and be based on project scope and difficulty rather than the academic calendar. For example, a complex project requiring a longer timeline could begin December 1st and end June 30th. Additionally, the end date established at the project’s inception could be modified after a mid-project progress review/meeting. Allowing and planning for a range of begin and end dates will give program staff the ability to scope projects appropriately, complete program activities over a longer time frame, reduce the time management challenges for staff, faculty and students, and decrease the tensions associated with “missing the deadline.” Given that the majority of projects already are being flexed, this would be more of a change in policy than in practice with the primary advantage being that the flexibility is planned and proactive rather than being unplanned and reactive. An alternative to flexible begin and end dates would be to accept only projects that are less complex and have a 3-4 month scope.
- 7. Integrate Evaluation Activities into Regular Program Operations** – Ideally, program evaluation should be ongoing and part of regular program activities. In conducting the present program evaluation, several recommendations for improving internal evaluation processes became apparent. These include the ongoing collection and maintenance of audit measures; continuing and further automating the mid- and end-of-semester student surveys; using mid-term progress meetings as a data gathering opportunity; tracking project milestones using a spreadsheet; and using end-of-project reports, project tracking documents, and student activity logs as part of the project quality review.

- a. *Maintain and regularly update audit measures.*** Program staff should collect and maintain the following data as part of their regular record keeping activities. Minimally, a project database and student developer database should be created to manage the data.
- Number of consulting hours by project
 - Number of student developer hours by project
 - Software and equipment purchases by project
 - Number of hours spent by program staff meeting with faculty and student developers
 - Estimated number of end users by project
 - Categorize projects by product type and project type
 - Number of faculty clients served
 - Faculty characteristics (college, department, rank, sex, previous projects)
 - Number of student developers employed
 - Student developer characteristics (college, department, number of projects, graduate/undergraduate, citizenship status, sex, technical skills)
- b. *Continue mid-semester and end-of-semester student surveys while further automating data analysis activities.*** Program staff should continue to administer an online mid-semester and end-of-semester survey of student developers to monitor student satisfaction with the program and CIT program and technical support. The surveys should also continue to assess student learning resulting from program participation and monitor other areas of concern such as faculty-developer interaction and supervision. Program staff should work to automate these surveys as much as possible so that survey results go directly into a database and key results are automatically generated.
- c. *Use mid-term progress meetings as a data gathering opportunity.*** As program managers conduct mid-term progress meetings for each project they should document the information gathered. Using a checklist or question template would facilitate this effort. The information gathered could then be entered into the project or student database. Additionally, these meetings would serve to document project progress, provide staff with the opportunity to address challenges, and allow for necessary adjustments in project timelines and staffing.
- d. *Tracking project milestones.*** Program staff should develop a spreadsheet or log to track milestones for each project. This could be part of the project database discussed previously. Tracking project milestones will assist program staff in monitoring projects and provide documentation of compliance with program procedures and requirements. Such a tracking system could also be used as part of the project quality review and as evidence of project success. Examples of project milestones include:
- Project acceptance date
 - All project-related meetings with faculty (date, topic, length)
 - Assignment of student developers (date, name, responsibilities)
 - Kick-off meetings (date, attendees)
 - Completion of project elements/phases (date, description)
 - Project assistance from program staff (date, time, description)
 - Technical assistance from CIT staff (date, time, description)
 - Any warnings or disciplinary action concerning student developers (date, description)

- Project extensions (date, new end date, explanation)
 - Student developer hours (dates, number of hours)
- e. Use end-of-project reports, the project tracking spreadsheet, and student activity logs as part of the project quality review.* In addition to conducting the review of completed projects using the process described above, the project quality review should also include the end-of-project reports completed by faculty, project-tracking documents, and student activity logs. These additional data sources will help to provide a more complete assessment of project success while not creating any additional data-gathering burden.

Each of the above recommendations addresses one or more of the challenges identified by the evaluation findings. Table 20 provides a summary of these challenges and identifies the specific recommendations that address each.

Table 20 – Summary of program challenges and related recommendations

Program Challenge	Related Recommendation(s)
1. Not all student developers attend orientation or kick-off sessions.	3, 4a, 7d
2. Student developers have difficulty negotiating with faculty and desire additional joint meetings with faculty and CIT staff.	1, 3, 4a
3. Student developers are not completing weekly logs.	3, 4a, 7a
4. Student developers and faculty clients find that four months/100 hours is not enough time to complete projects.	6
5. Only a third of projects are completed on time.	1, 2, 4a, 6, 7a, 7d
6. Many projects are being started late (after Feb. 1).	1, 4a, 6, 7d
7. Student developers with multiple projects experience more challenges than do those with only one project.	1, 3, 4a, 5
8. Faculty clients are not using program web site to manage projects.	3, 4b
9. Some faculty clients have difficulty with their student developers.	1, 3, 4
10. Student developers receive inappropriate (too much or too little) supervision from faculty.	1, 3, 4
11. Some projects may not be appropriate for the program.	2, 6, 7c
12. Overall project quality is only average.	1, 2, 4, 5, 6
13. Extended projects often exceed their budgets.	1, 2, 4, 6
14. Many projects have unclear objectives.	2a
15. There is no plan for ongoing evaluation.	7
16. Information on program outputs was difficult to obtain.	1, 2, 4, 7

~FAST Tex 2004 Program Evaluation Report

Appendices

Appendix A:

~FAST Tex Student Focus Group Protocol March 31, 2004

Welcome: The Center for Instructional Technology, is seeking your help in finding ways to improve the ~FAST Tex program. The purpose of today's focus group is to explore issues related to your participation in the program. We are looking forward to hearing your ideas.

Introduce evaluation staff: Joel Heikes, Research Associate, MEC

Participants introduce themselves [*name/department/project*]

Questions:

1. What do you **like** about working on your ~FAST Tex project?
2. What do you **dislike** about working on your ~FAST Tex project?
3. Have any of you had any **technical problems** related to your project?
 - a. How did you **resolve** the problem?
 - b. Did any of you **consult with CIT staff**?
 - c. If you didn't seek out assistance, why not?
4. **What could program staff do** to make your experience better?
5. **What motivated you to apply** to work with the ~FAST Tex program?
 - a. Why ~FAST Tex and not something else?
6. **What have you gained** so far from participating in the ~FAST Tex program?
7. Do you feel you are being **fairly compensated** for your time?
 - a. If no, what would be fair compensation?
8. What has it been like to **work with faculty**?
9. Do you think you will be able to **finish your project on time**?
 - a. Why/Why not?

Appendix B:

~FAST Tex Mid-Term Student Survey and Results Spring 2004

Please tell us about your experience with the ~FAST Tex program so far:

- 1) For how many years have you participated in the ~FAST Tex program?
 - o One (this year) 19 – 83%
 - o Two 4 – 17%
 - o Three 0
 - o Four 0

- 2) From the list below, please rank the **three** most important (1=most important and 3=least important) reasons you decided to apply for the ~FAST Tex program? (n=15)

Reason	Rank			Weighted Total
	1	2	3	
Needed a job/extra income	5	4	3	26
Good pay rate	1	5	2	15
Had the necessary skills/experience	0	0	2	2
Enjoy technology	1	1	5	10
Opportunity to learn new skills	2	2	1	11
Opportunity to work with faculty	3	1	0	11
Was asked to apply by a faculty member	1	1	1	6
The project(s) sounded interesting	1	2	1	8
Other: closely related to my major working on my own time flexibility in hours	2	1	0	8

- 3) The application process was easy.
 - o Strongly agree 9 – 39%
 - o Agree 12 – 52%
 - o Not sure 0
 - o Disagree 1 – 4%
 - o Strongly disagree 0

- 4) How could the application process be improved?
- More publicity should be given. An lecture about the various projects would be very helpful.
 - I thought there were no problems; perhaps if multiple people can apply to the same job and then the best one picked (rather than first come, first serve)
 - Not sure
 - I was not sure if all my information was being saved intermitantly and if I could work on the application in parts since it was quite long.
 - No way I can currently think of.
 - I cannot think of any. The application process is currently well managed and very quick response too.
 - I'm not sure that it could be, it seemed pretty straight forward.
 - No suggestions.
 - the application was easy, only possible suggestion would be to make it shorter
 - make it short
 - The application process is good.
- 5) Did you attend one of the orientation sessions conducted by program staff?
- o Yes 11 – 48%
 - o No → Please explain why not and then skip to #8: 11 – 48%
 - I'm not sure, I applied late maybe
 - Times were unsuitable
 - Class conflict
 - All information was already provided by ~FASTtex manager. Student handbook also contained all necessary information online.
 - I joined the program late and the last three sessions conflicted with my classes.
 - I started with the ~FAST Tex program in late February.
 - there were none held after I applied
 - Conflict with classes, but obtained and read through the necessary literature.
- 6) The orientation session conducted by program staff was helpful. (n=11)
- o Strongly agree 2 – 18%
 - o Agree 7 – 64%
 - o Not sure 2 – 18%
 - o Disagree 0
 - o Strongly disagree 0

- 7) How could the orientation session be improved?
- Examples of the past projects could be used to illustrate the process.
 - If the respective professor of my project had attended.
 - It would be helpful to have it much more interactive with a lot of emphasis on questions and answers. Also, it can be complimented with a mid-term session because that is the time when most questions arise.
 - Show us some previous projects that were done by ~FASTTex students.
 - Log us in to the lab computers!
 - make only first time students attend
- 8) Did you attend a kick-off meeting with your faculty supervisor?
- o Yes 19 – 83%
 - o No → Please explain why not and then skip to #12: 2 – 9%
 - It was not needed since I already knew the professor I was working with...we have known each other for years.
 - I met with my Prof regularly already so we did not see a reason to have a special meeting.
- 9) Did the project manager, Suzanne Rhodes, attend the kick-off meeting with you and your faculty supervisor? (n=19)
- o Yes 10 – 53%
 - o No 9 – 47%
- 10) The kick-off meeting with faculty was very useful. (n=19)
- o Strongly agree 12 – 63%
 - o Agree 7 – 37%
 - o Not sure 0
 - o Disagree 0
 - o Strongly disagree 0
- 11) How could the kick-off meeting be improved?
- The faculty could have a sketch of their workflow.
 - more specific goals, projects weren't well defined.
 - Perhaps a pre-kick off e-mail convo
 - Clear expectations from the faculty member should be asked for. I had a feeling that it was left vague in the meeting and that is still troubling us.
 - No ways I can think of
 - I don't know that it could be.
 - No suggestions.
 - Make sure the faculty supervisor has a clear understanding of what they want before coming to the meeting. My first supervisor only had an idea of what she wanted and therefore led to some unneeded work. My second supervisor had a very clear idea of what she wanted and came to the meeting prepared, which made my work a lot easier.
 - I wouldn't make any improvements to the kickoff

12) Have you been completing your weekly logs?

- o Always 9 – 39%
 - o Sometimes 9 – 39% |
 - o Rarely 2 – 9% | → Please explain your reason(s):
 - o Never 2 – 9% |
- Difficult to put everything on paper.
 - I don't keep my hours, so its hard to fill them out.
 - We haven't gotten started yet...the professor I'm working with needs certain people with particular ailments, and she has had a tough time corraling them. We will begin soon, though.
 - I used to, but now you have to go to the actual office to report hours, so it seems like you have to do one or the other. Not sure.
 - The process of having to log in every single time makes submitting logs seem like extra work. If we could be automatically logged in all the time, that'd be great. I do, however, keep track of when I work and what I work on in great detail and keep up with the professor I work with on a weekly basis.
 - I usually get time only once or twice a month to update the log. I do however, keep track of the time I spend on my project.
 - Didn't know that I was supposed to.
 - Get caught up in school/work, and don't always submit them at the end of the week, although I do keep a record on my computer.
 - I do fill them out just not always week to week. Sometimes there is no work to be done one week, or I am too busy to do any work.
 - I missed the first few as I was getting used to the online system. I had to make a rough underestimate of the hours as I filled them out later from memory.
 - Sometimes I get busy with course work, and forget to fill in the logs. Of course, I do come back and fill them in once I get the time.
 - Sometimes i don't complete them on time, but i always make sure to go back and fill out what i did for the corresponding week.

13) Have you experienced any technical problems or other difficulties related to your project(s)?

- o No → Skip to # 16 15 – 65%
 - o Yes → please describe the problems or difficulties: 6 – 26%
- Sometimes, the Mac does not work well, CIT staff help a lot with the troubleshooting.
 - The video editing station in the CIT lab had some technical issues (VHS to digital transfer). Problem was not fixed the next week when I revisited. I had to find other facilites. I still don't know if problem was addressed/fixd. On staff proctor said he would have the cIt tech guy make the adjustment/fixing.
 - video files got corrupted - a lot of time spent uploading and downloading large video files everytime I need to work on my project in the CIT lab

- Problems in getting the basic material from the faculty. Faculty is very busy and I am not in a position to pressurize.
- having small hardware problems on my own computer running required software
- sometimes confused of the requirement of the project

14) Have you sought assistance for these problems/difficulties from CIT staff? (n=6)

- o Yes 5 – 83%
- o No → Please explain why not and then skip to #16: 1 – 17%
 - I have shown the work I have done so far and got feedback on it.
 - i just need to upgrade my hardware

15) What assistance did CIT staff provide?

- Using hardware and new software.
- To solve hardware problems I met.
- Told me the tech guy would fix it easily.
- advice on alternative solution
- I got some technical assistance and general feedback about the direction to go to.
- contact with faculty to get a more clear idea

16) Have you sought assistance on your project from the program manager, Suzanne Rhodes?

- o No 16 – 70%
- o Yes → Describe the assistance you received: 5 – 22%
 - I needed someone to show me how to cut DVDS from the digital footage...
 - she helped to contact my faculty supervisor to set up a kick-off meeting, to provide extra hardware ...to provide guidance on how to make stream video.
 - not yet, anyway...
 - Sometimes the faculty requests something that is not feasible withing the means & ways of our program, and she steps in accordingly.
 - provided different server to upload files - provided software to work from home so I don't have to deal with all the technical problems in CIT lab
 - Asked whether a Windows server could be set up.
 - provide materials that needed for the project

17) How easy is it to contact program staff (Suzanne Rhodes or Jane Ann Parker)?

- o Very easy 18 – 78%
- o Somewhat easy 3 – 13%
- o Somewhat difficult 1 – 4%
- o Very difficult 0
- o Have never attempted to contact program staff 1 – 4%

18) How important is it that program staff (Suzanne Rhodes or Jane Ann Parker) remember your name and project?

- Very important 10 – 44%
- Important 6 – 26%
- Somewhat important 6 – 26%
- Not important 1 – 4%

19) Do you anticipate completing your project by May 31, 2004?

- Yes 21 – 91%
- No → Please explain why not: 1 – 4%

Please provide us with some additional information about yourself:

20) What is your age? _____ mean = 23 range = 18-32

21) What is your sex?

- Female 5 – 22%
- Male 18 – 78%

22) Are you an international student?

- Yes 10 – 44%
- No 12 – 52%

23) What type of degree are you currently undertaking?

- Bachelor's degree 14 – 61%
- Master's degree 7 – 30%
- Doctoral degree 1 – 4%
- Other (please specify): _____

24) What is your major/primary area of study? _____

- Computer Science 8 – 31%
 - Engineering 5 – 19%
 - Business 4 – 15%
 - Communications 3 – 12%
 - Education 2 – 8%
 - Liberal Arts 2 – 8%
 - Fine Arts 1 – 4%
 - Information Science 1 – 4%
- 26 (3 double majors)

Appendix C:

~FAST Tex Faculty Client Survey and Results Spring 2004 Results (n=39)

Please help us evaluate the ~FAST Tex program:

- 1) How would you rate any project assistance you received from CIT.
 - o Excellent 26 – 66.7%
 - o Good 3 – 7.7%
 - o Average 3 – 7.7% No Response 1 – 2.6%
 - o Fair 1 – 2.6%
 - o Poor 1 – 2.6%
 - o I did not receive any project assistance from CIT → Skip to #3 4 – 10.3%

- 2) How could the project assistance provided by CIT be improved?
 - I think the major problem with my project was that it was much larger than I believed it was at the outset. I mutated a bit from the original design and I'm not sure the assistant was completely equipped to help.
 - Suzanne has been great but once again I did not hear anything from my student assistant and do not know whether any work has been done.
 - I can't think of anything. Suzanne was a wonderful contact and she handled all my questions and concerns.
 - Have a better, especially a more reliable, pool of helpers.
 - It would be nice to have a clear path to back-up tech assistance.
 - I did not have any problems
 - It was excellent.
 - Be more timely in deliverables
 - Can't think of anything.
 - I had no issues here; being a busy professor, all was made very clear and simple.
 - I can't think of anything.
 - Improve the number of hours that student can work on project.
 - Have money for 2 semesters
 - Clearer description of student support roles and deadlines.
 - Can't really imagine. I had many projects and my ~FAST Tex assistant managed to accomplish many of them.
 - I can think of no improvements. [student worker] was very professional, punctual and always kept me posted!
 - Did not request any
 - NO problems
 - Difficulty with server and/or server access came at critical time during project and seemed to take (according to student developer) a long time to resolve.
 - Get the projects up and running sooner in the semester.
 - Choose students who have better skills in both technology and language.

- 3) In general, how easy was it to use the ~FAST Tex website?
- | | |
|--|------------|
| o Very easy | 10 – 25.6% |
| o Easy | 17 – 43.6% |
| o Not sure | 3 – 7.7% |
| o Difficult | 0 |
| o Very difficult | 7 – 17.9% |
| o Never visited the ~FAST Tex website → Skip to #6 | 0 |
| o No Response | 2 – 5.1 |
- 4) Did you use the ~FAST Tex website to monitor your student developer's progress or hours?
- | | |
|-----------------------------------|------------|
| o Yes | 10 – 25.6% |
| o No | 6 – 15.4% |
| o I was not aware of this feature | 18 – 46.2 |
| o No Response | 2 – 5.1% |
- 5) How could the ~FAST Tex website be improved?
- I only visited it at the end so I don't feel like there is much I can contribute.
 - It's OK now.
 - easier to locate and fill out applications.
 - very good now
 - I think I had trouble saving information typed into the application from one day to the next. Otherwise, no problems.
 - Probably with more training and familiarity I would use it
- 6) Which of the following project-related challenges did you experience this semester?
(Check all that apply) *** #/% Yes***
- | | |
|---|------------|
| o Getting started late (i.e., after Feb 1) | 17 – 43.6% |
| o Difficulty in getting necessary content material to student developer | 7 – 17.9% |
| o Unclear division of responsibilities... | 1 – 2.6% |
| o Unclear direction from ~FAST Tex program staff | 0 |
| o Technical difficulties | 9 – 23.1% |
| o Time management difficulties | 9 – 23.1% |
| o Project management difficulties | 5 – 12.8% |
| o I did not experience any project-related challenges. | 9 – 23.1% |
| o Other (specify): _____ | 10 – 25.1% |
- no contact from my student developer
 - connecting [student worker] with my depart. web manager
 - those are my time-management issues, not the student's
 - students unable or unwilling to do the work
 - I lost a couple of weeks to illness.
 - Receiving/seeing material from student developer
 - Getting [student worker] to meetings - great work, rough on schedules
 - Students who took the assignment and then changed their mind
 - communication – language

- 7) Do you anticipate completing your project by May 31, 2004?
- o Yes 17 – 43.6%
 - o No → Please explain why not: 22 – 56.4%
- It's just a much larger project than I ever imagined. What I hope to have by May 31 is a skeleton of a site that I can flesh out in the future.
 - I don't think he has done any work or he would have contacted me.
 - There was an unexpected problem with some of the new information for the revisions. Also -- there were problems connecting with the web manager in our department. I think we will finally make that happen next week. Finally – [student worker] missed a couple of meetings then I had my own delays. We just didn't stay on top of the schedule the way we needed to.
 - student developer has been taking a long time developing the prototype
 - We got a bit behind with database revisions through no fault of the CIT staff. Our delays were within my office and related in part to external issues beyond my control with resulted in my staff not having nearly the time I had anticipated to dedicate to database work related to this project. None-the-less, I expect that by May 31 we'll have a prototype available, but more work will be needed...
 - Busy semester. No rush so we agreed to put off the starting date until May
 - got started very late and then student assigned to me was assigned to three other ~FASTEX projects and worked on them instead
 - Even though we have a significant amount of video work done, I'm not sure my student understands how to set up what I'm asking him to do - and so he hasn't been doing it. Once he finds a source for help I expect things to work out quickly.
 - I haven't heard from the student developer
 - The is a yes & a no. The project turned out to be somewhat more complex than I expected, because what I'm attempting is new; but I did get a big chunk of the project done.
 - We have all the material but need a bit more time for the student developer to upload it.
 - Student was not able to put in as many hours as expected this summer.
 - The student helpers have not been able to meet regularly with us and I have had difficulty getting content material to them.
 - There was too much to do, but we did a great deal and will do more in the next two weeks.
 - The project is a long-term project, but the aspects of the project that we had anticipated completing prior to June will be completed.
 - Slow start, some missing material for student, student time constraints on following through.
 - Ongoing project.
 - Have had little input/communication with student developer.
 - The ~FAST Tex student became ill for one month, and that pushed him (and the project) back since he had to catch-up with his classes as well
 - The student developer has several other web projects so we've been working slowly, but plan to be finished mid-June.
 - late start

8) Will the finished project meet your expectations?

- o Yes 27 – 69.2%
- o No 7 – 17.9%
- o No Response 5 – 12.8%

Please explain why or why not:

- Eventually, I believe it will exceed my initial expectations; it's just going to take a whole lot longer than I imagined.
- I wish there was a "maybe" option here. I plan to try and get the rest of the needed revisions and get the program up on the web. If we manage to do that in the remaining 30 hours then it will meet expectations. If not -- I will be somewhat disappointed. The revisions have taken more time than I would have expected.
- Once polished I'm confident that we will have what we set out to get.
- Actually, it might meet my expectations, but I don't know if it will be finished.
- Even though we have a significant amount of video work done, I'm not sure my student understands how to set up what I'm asking him to do - and so he hasn't been doing it. Once he finds a source for help I expect things to work out quickly.
- I was hoping to get more iMovies edited by my TA.
- I haven't seen any output from the project developer.
- The two students who worked on this project are very capable and motivated. Their progress to date is excellent, and I see no problem in them wrapping up the last few items of the project.
- My student was exceptional and he has done more than I had expected to be accomplished.
- In some ways we are still ahead of schedule, and the quality of the product is very good.
- My intern is extremely conscientious and creative. The project has surpassed my original expectations!
- Hope so.... will work through the Summer.
- I had hoped the project would be completed in time to do evaluation and improvements. We will be lucky to have it completed.
- Am unable to answer this question at this time.
- Sufficient progress has been done, and appears that we are in the right track
- I have no reason to think that it will not, the ~FAST ETX program has been great in the past

9) Do you anticipate applying for a ~FAST Tex grant next year?

- o Yes 30 – 76.9%
- o No 9 – 23.1%

10) What do you like most about the ~FAST Tex program?

- Now that I know how it works a little better, I will apply in the future. I think just the basic concept of a tech student interacting with a non-tech faculty to initiate use of technology in our teaching is tremendous.
- When I get the help, it's top-quality!
- I liked the easy and effective interaction with Suzanne. I also think that [student worker] is a good match to the project.
- the staff support: everybody is very helpful
- Help managing meetings with students and the excellent technical guidance provided.
- Technical assistance available. Nice people we meet. Chance to get help with projects I want to do.
- flexibility in getting the student developer to do good things according to their talents; helps my ability to plug holes in larger projects
- Excellent assistance from CIT staff in fully developing idea. The student assigned to the project was very knowledgeable and motivated.
- Suzanne's personal help, going beyond the call of duty.
- Great free help!
- The support and the expertise available.
- I appreciated having the CIT find a great web developer for me.
- It allows me to be creative.
- The recognition of winning a grant. Suzanne Rhodes does a fine job.
- 1. Suzanne Rhodes' superlative helpfulness. 2. The skills of my student developer
- 1. the opportunity to solve a problem that would otherwise go unsolved because of funding. 2. the opportunity for students to participate in exciting and new software development projects.
- CIT assistance
- Great staff!!! Friendly and knowledgeable.
- to support educational activities otherwise not available anywhere else on campus
- It is a mechanism to support development of teaching.
- The ability to get someone to get a small project done which will be of great benefit to me.
- Highly-skilled technical support.
- The top notch students ~FAST Tex finds.
- It is a wonderful program that assists professors in getting things done that normally, due to time constraints, would take too long to finish, and it's a great opportunity for students looking for experience.
- The ~FASTTex program offers technical assistance and equipment that we did not have access to before.
- Sophistication of the student assigned to work with me.
- 1) Having a person (Suzanne Rhodes) to consult with, during the application and project phases. 2) Being matched up with such a high quality intern!
- Keeps me working on important projects that would otherwise drop through the cracks.
- The student assistant

- Good opportunity for junior faculty with no other resources to develop tools for teaching and research. Helps faculty identify student developers.
- It has the potential for serving faculty like me who lack the technical skills that these students have. It also offers the student some financial aid and perhaps new experiences.
- This is a great way to get innovative technology applications created for use in our classrooms quickly.
- They seem in general to select technically very capable students. In case a student does not work out (or if they changed their mind) the staff are very helpful in finding a replacement.
- I like my interactions with Suzanne, unfortunately the students with whom I have worked do not have her interpersonal skills, nor do they have adequate communication skills
- The willingness of the ~FASTTex program leaders to match our needs with a (or multiple) student developers.
- Close personal relationship with the assistants and the hands-on nature and accessibility of Suzanne.

11) What do you like least about the ~FAST Tex program?

- I was mostly unhappy with the way I managed the project, and how I underestimated the difficulty.
- Two out of three of the assistants I've been assigned have not done any work.
- Given that the revisions took so much longer than expected I do not know if 100 hours is a realistic assignment.
- the late start in spring
- Program is fine--just have trouble finding time to think about it.
- Unreliable student workers.
- I just would like more of it.
- There's very little feedback about the progress of the project. I have heard very little from my student developer.
- money needed for two semesters
- It would be nice to spread the funds over Spring and Fall semesters. The work would still get done, but allows a more flexible schedule for the student.
- The \$\$\$ is limiting of bigger, more impressive things.
- Limited hours; having to reapply rather than have continuing support
- Very dependent on particular student and his/her commitment to quality results.
- The program would work much better if recipients and developers could be identified in the early fall. As it stands, there is insufficient time to develop complex projects and any technical glitch or down time due to illness, family emergencies, etc. can completely derail the process forcing it to continue into the summer when students or faculty may be unavailable. Note: THE information below about student developer can't be answered because there were two who were very inconsistent in performance.
- Many of the problems I had were at least 50% "self-induced". I should have taken more time to inform myself about such things as the ~FAST-tex Web site. The

following "student developer" questions don't permit comments, so I cannot fairly evaluate him.

- Nothing. When I've discussed it with faculty at other universities, they are amazed and impressed by the program.
- The program is not attentive to students who have language and communication difficulties. Identifying students who have English proficiency issues would be helpful to the student's success.
- Getting started late.

Please help us evaluate student developers:

12) Which communication method did you use most with your student developer?

- o Face-to-face meetings 19 – 48.7
- o Telephone 0
- o Email 20 – 51.3
- o Paper memos/notes 0

13) How easy was it to contact and get a response from your student developer?

- o Very easy 23 – 59.0%
- o Somewhat easy 8 – 20.5%
- o Inconsistent—sometimes easy/sometimes difficult 6 – 15.4%
- o Somewhat difficult 1 – 2.6%
- o Very difficult 0
- o No Response 1 – 2.6%

14) In general, how would you rate the *communication ability* of your student developer?

- o Excellent 16 – 41.0%
- o Good 15 – 38.5%
- o Average 3 – 7.7%
- o Fair 1 – 2.6%
- o Poor 2 – 5.1%
- o No Response 1 – 2.6%

15) In general, how would you rate the *technical ability* of your student developer?

- o Excellent 26 – 66.7%
- o Good 7 – 17.9%
- o Average 2 – 5.1%
- o Fair 1 – 2.6%
- o Poor 0
- o No Response 3 – 7.7%

16) In general, how would you rate the ability of your student developer to *meet deadlines*?

- o Excellent 13 – 33.3%
- o Good 12 – 30.8%
- o Average 5 – 12.8%
- o Fair 1 – 2.6%
- o Poor 4 – 10.3% No Response 4 – 10.3%

17) In general, how would you rate the *quality of work* completed by your student developer?

- o Excellent 22 – 56.4%
- o Good 7 – 17.9%
- o Average 1 – 2.6%
- o Fair 2 – 5.1%
- o Poor 1 – 2.6%
- o No Response 6 – 15.4%

18) How much supervision *did you provide* to your student developer?

- o Extensive – Met or communicated with 3 or more times a week 0
- o Frequent – Met or communicated with 1-2 times a week 7 – 17.9%
- o Occasional – Met or communicated with once every other week 19 – 48.7%
- o A little – Met or communicated with once a month 7 – 17.9%
- o None/almost none – ... once or twice during the project 3 – 7.7%
- o No Response 3 – 7.7%

19) How much supervision did your student developer *need*?

- o Extensive 2 – 5.1%
- o Frequent 4 – 10.3%
- o Occasional 19 – 48.8%
- o A little 7 – 17.9%
- o None/almost none 3 – 7.7%
- o No Response 4 – 10.3%

Please provide us with some additional information about yourself:

20) What is your level of computer proficiency?

- o Strong ability – know all the tricks, can troubleshoot, develop own projects
6 – 15.4%
- o Intermediate ability – can use a wide variety of software/hardware without help
19 – 48.7%
- o Average ability – can use email, Web browser, MS Word, and MS Excel without help
13 – 33.3%
- o Some ability – use email, Web browser and MS Word but sometimes need help
1 – 2.6%
- o Do not use a personal computer
0

21) What is your sex?

- o Female 20 – 51.3%
- o Male 18 – 46.2%
- o No Response 1 – 2.6%

22) What is your university status?

- o Lecturer 9 – 23.1%
- o Assistant Professor 10 – 25.6%
- o Associate Professor 5 – 12.8%
- o Professor 10 – 25.6%
- o Other (specify): 5 – 12.8%
 - Curator and lecturer
 - Senior lecturer
 - staff (project manager)
 - chair
 - UTLC Staff, Workshop Instructor

23) What is your department? _____

- Music, Voice/Opera
- English - 3
- Human Ecology
- Germanic Studies - 5
- Texas Memorial Museum
- Kinesiology & Health Education - 5
- UWC
- Electrical Engineering
- social work
- accounting
- Special Education
- UT Learning Center - 3
- Curriculum & Instruction - 3
- civil engineering
- Psychology
- Aerospace
- French and Italian
- Mechanical Engineering – 3
- Theater and Dance

Appendix D:

~FAST Tex Student Exit Survey and Results Spring 2004

Questions 1-11 relate to your specific project. If you participated in more than one project, please use your experience in your favorite project to complete Questions 1-11:

****Results for question 1 (n=27) reflect a "yes" response to each item for any project****

- 1) What did you learn as a result of working on your ~FAST Tex project? (check all that apply)
- | | |
|--|----------|
| <input type="radio"/> A specific piece of software (e.g., Dreamweaver, Photoshop) | 13-48.1% |
| <input type="radio"/> A specific piece of equipment (e.g., video camera, scanner) | 6-22.2% |
| <input type="radio"/> A specific technical process (e.g., video streaming, creating a website) | 9-33.3% |
| <input type="radio"/> Time management skills | 15-55.6% |
| <input type="radio"/> Project management skills | 19-70.4% |
| <input type="radio"/> How to interact with clients/faculty | 19-70.4% |
| <input type="radio"/> Information unrelated to my major/professional field | 10-37.0% |
| <input type="radio"/> Information directly related to my major/professional field | 6-22.2% |
| <input type="radio"/> Other (specify): _____ | 0 |
| <input type="radio"/> I did not learn anything new... | 2-7.4% |

****Results for question 2 shown for all projects (n=35)****

- 2) How would you rate any project assistance you received from CIT.
- | | |
|---|----------|
| <input type="radio"/> Excellent | 15-42.9% |
| <input type="radio"/> Good | 9-25.7% |
| <input type="radio"/> Average | 0 |
| <input type="radio"/> Fair | 1-2.8% |
| <input type="radio"/> Poor | 0 |
| <input type="radio"/> I did not request any project assistance from CIT | 10-28.6% |

- 3) How could the project assistance provided by CIT be improved? (includes responses for all projects)
- help students get in touch with faculty more often
 - Sometimes FTP folder is not accessible.
 - It would be nice to schedule regular meetings with CIT. This should be mandatory so that we get timely help and guidance from CIT
 - The little project assistance I got was great, I'm not sure how it could have been improved.
 - Make it interactive so that people can talk to each other and learn from each other.
 - All I needed was a server to be set up. It has taken a while and is still not set up, but I understand that everyone is busy and it did not hamper my progress.
 - It would be very helpful if there was a library of books for each of the major programs (like a Sam's Teach Yourself Flash book) rather than just the reference manuals.
 - May be having a mentor for the students to approach in case of problems.

- One of my faculty never set a specific date of completion and was displeased that it was finished
- Online payroll time sheets.
- Interaction with folks.
- Again, it would be nice to have regular meetings with CIT built into the structure of ~FAST Tex.
- Everything is fine.

Results summed for all projects (n=35); i.e., number of yes responses across all projects.

4) Which of the following project-related challenges did you experience this semester?

(Check all that apply)

- | | |
|--|----------|
| o Getting started late (i.e., after Feb 1) | 16-45.1% |
| o Unclear direction from faculty supervisor | 9-25.7% |
| o Difficulty in communicating with faculty supervisor | 0 |
| o Difficulty in getting necessary content material from faculty supervisor | 6-17.1% |
| o Unclear division of responsibilities... | 1-2.9% |
| o Faculty supervisor was unprepared/disorganized | 2-5.7% |
| o Unfamiliar with content material for project | 2-5.7% |
| o Unclear direction from ~FAST Tex program staff | 1-2.9% |
| o Technical difficulties | 10-28.6% |
| o Time management difficulties | 8-22.9% |
| o Lacked adequate technical skills | 1-2.9% |
| o Other (specify): _____ | 0 |
| o I did not experience any project-related challenges. | 7-20.0% |

****For questions 5-12, results were compiled for all projects (n=35)****

5) How much supervision **did you receive** from your faculty supervisor?

- | | |
|--|----------|
| o Extensive – Met or communicated with 3 or more times a week | 1-2.9% |
| o Frequent – Met or communicated with 1-2 times a week | 11-31.4% |
| o Occasional – Met or communicated with once every other week | 14-40.0% |
| o A little – Met or communicated with once a month | 8-22.9% |
| o None/almost none – Met or communicated with once or twice... | 1-2.9% |

6) How much supervision did you **need**?

- | | |
|--------------------|----------|
| o Extensive | 0 |
| o Frequent | 8-22.9% |
| o Occasional | 10-28.6% |
| o A little | 12-34.3% |
| o None/almost none | 5-14.3% |

7) Which communication method did you use most with your faculty supervisor.

- | | |
|-------------------------|----------|
| o Face-to-face meetings | 19-54.3% |
| o Telephone | 0 |
| o Email | 16-45.7% |
| o Paper memos/notes | 0 |

- 8) How easy was it to contact and get a response from your faculty supervisor?
- | | |
|---|----------|
| o Very easy | 23-65.7% |
| o Somewhat easy | 10-28.6% |
| o Inconsistent—sometimes easy/sometimes difficult | 1-2.9% |
| o Somewhat difficult | 1-2.9% |
| o Very difficult | 0 |
- 9) How easy was it to obtain content material for the project from your faculty supervisor?
- | | |
|--|----------|
| o Very easy | 15-42.9% |
| o Somewhat easy | 8-22.9% |
| o Inconsistent—sometimes easy/sometimes difficult | 5-14.3% |
| o Somewhat difficult | 1-2.9% |
| o Very difficult | 1-2.9% |
| o Project did not require receiving content material from faculty... | 5-14.3% |
- 10) In general, how would you rate the ability of your faculty supervisor to manage your project?
- | | |
|-------------|----------|
| o Excellent | 13-37.1% |
| o Good | 16-45.7% |
| o Average | 5-14.3% |
| o Fair | 0 |
| o Poor | 0 |
- 11) Do you anticipate completing your project by May 31, 2004?
- | | |
|-------|----------|
| o Yes | 24-68.6% |
| o No | 11-31.4% |
- Please explain why not:
- I may need to complete setting up the necessary server after I leave Austin (perhaps do this remotely).
 - Long-term project; I did finish what I was intending to finish...
 - the material involved is overwhelming
 - In the case of one project, I am still waiting for the content. For the other one, we have got additional funding and so the deadline has been extended to August.
 - This depends on what complete means. Both projects in which I was involved where the first parts of a larger process.
 - Meetings weren't frequent enough, so there was a stoppage time between work being done and next phase started. Also, not quite clear on data entry format, so project is slightly stalling.
 - Because the technical services needed to complete the project won't be available until after the summer and because two of the people we need for the content portion of the project won't be available until after the summer.
 - I fell sick during the semester and lost time to work on the project.
 - I actually chose to stop based on the time/pay limitation. The project will continue.

- New features to be implemented, cleaning up of current program.
- This project has three phases. This semester is the in second phase and a lot of materials are not ready yet. But tasks for this semester may be done.

12) Do you think your project was successful?

- o Yes 32-91.4%
- o No 3-8.6%

Please explain why or why not:

- it will be upon it\'s completion
- I would have liked to get more done but with the constraints of time and content, it was not possible.
- The site will be implemented as expected, and look nice.
- I have completed the basis for future development for both proposals.
- A very useful web-based system has been developed and it should be useful for quite a while.
- The project is not yet finished, but when it is finished I would certainly count it as a success.
- The product has been produced.
- It made the task that the professor wanted to do much easier for him, and everyone that uses the applicataion.
- The faculty is satisfied with the project so far.
- Design was too much of an issue and freedom was not given to implement any parts of the product.

Questions 12-17 relate to the ~FAST Tex program in general: (n=27)

13) How often did you use the ~FAST Tex online system?

- o 5 or more times per week (daily) 0
- o 3-4 times per week 1-3.7%
- o 1-2 times per week (weekly) 7-25.9%
- o 2-3 times per month 4-14.8%
- o 3-4 times this semester (monthly) 7-25.9%
- o 1-2 times this semester 4-14.8%
- o Never 3-11.1%
- o No Response 1-3.7%

14) In general, how easy was it to use the ~FAST Tex online system?

- o Very easy 5-18.5%
- o Easy 12-44.4%
- o Not sure 9-33.3%
- o Difficult 1-3.7%
- o Very difficult 0

15) How could the ~FAST Tex online system be improved?

- Eliminate the time sheets!
- discussion board for students to ask questions
- I wish I could fill out the timesheet online.
- Student login link is buried deep within the site. It would be nice to have that prominent on the first page.
- Allow editing of old reports. Once I accidentally filed a report under the wrong date. It would be nice to be able to change that.
- It seemed pretty easy to me
- Give people the option to stay logged in. Make week selection for reports a little easier.
- Less down time. Add feature to allow students to undo submitted reports that had errors.
- In the beginning there were some technical problems. This actually reduced my desire to use it during the project. I had server space in three locations including the College of Education, which also reduced my desire to use an additional location.
- If a more customized welcome screen was implemented.

16) Do you anticipate participating in the ~FAST Tex program next year?

- o Yes 17-63%
- o No 10-37%

Please explain why or

- need to earn extra money to support my education here.
- advantages are it's time flexibility and faculty support.
- If I am still at the university I will participate.
- I enjoyed working on a project that will actually be useful to someone. I would like to work on a project where I do not already have most of the technical skills necessary.
- I enjoyed the opportunity to explore new technologies and to explore creative ways to use them for instructional purposes. I look forward to continuing that learning process.
- If my professor has another project I would work on it.
- It's depends on my busy schedule, but I would be happy to.
- To continue the project if needed, or to work for another project.

why not:

- graduating in may
- I will graduate next semester
- Graduating in December
- This is a contract job for me.
- I am graduating this month.
- graduating
- Graduating

17) What did you like most about your ~FAST Tex experience this semester?

- It posed many opportunities for learning.
- It's very well-organized and convenient.
- getting paid and having the resources and know how at my disposal whenever I had questions
- I liked the opportunity to work with both faculty and CIT staff, and actually learned something new. Flexible working hours. Great experience.
- Practice website design skills and programming skill.
- Excellent opportunity to learn
- Flexibility of work hours and managing projects on my own.
- The flexibility of the work schedule and the level of confidence I was given.
- The ability for me to make my own hours.
- Freedom to work at my own pace and giving the best shot at every turn.
- It allowed me to earn money while creating something of value, which I always enjoy.
- Working on my project was a welcome diversion from school work. It will be rewarding to have my fellow students using the system developed.
- The flexibility in working hours and location.
- As I mentioned earlier, the opportunity to learn more about new technologies.
- I learned something about the material I was creating so I will be better prepared for my summer internship.
- Superb CIT staff, very friendly and supportive faculty
- The flexible hours, my project was in an area that i was interested in
- flexibility of schedule
- An opportunity to formally create and complete a project that I believe needed to be done, and that I hope will be used ...
- Getting to learn new things.
- I got to learn a lot about software design.

18) What did you like least about your ~FAST Tex experience this semester?

- I initially thought that it would not be too difficult to learn a new technology to complete a project while at school. This wasn't as easy as I had expected. Perhaps it would have been better to take up a project for which I knew the technology beforehand.
- I messed up my progress reports.
- Coming to campus to turn in time sheets
- none
- Get faculty's feedback and get to start the project too late.
- Not getting the content from one faculty and not being able to take advantage of the vast resources CIT has.
- Uncertainties about content for the project
- I had some trouble getting the project rolling, but once it got on its feet it wasn't too bad.
- Its like working in a blackbox. You dont know much about other people there.

- I was paid by hour rather than for project completion. This led to some difficulties as I honestly don't keep strict hours.
- I really cannot complain about my ~FAST Tex experience. It went well.
- The progress report system.
- The discovery that there were some things that I could not do on my own.
- My online time sheet was redundant.
- Technical problems due to large amount of video files to transfer.
- Sometimes faculty deadlines conflict with school deadlines
- I didn't like the fact that I put a work limitation based on the 100 hour limitation. I would have liked the project to be a 20 hour GA position allowing me the time and money to do the full project rather than just a pilot and providing me with instate status.
- At times, I was unable to work on the project because of school work
- I didn't get to implement anything.

Please provide us with some additional information about yourself: (n=27)

19) What is your age? (n=26) mean = 23.8 range = 19-32

20) What is your sex?

- o Female 4-14.8%
- o Male 22-81.5%
- o No Response 1-3.7%

21) Are you an international student?

- o Yes 10-37.0%
- o No 16-59.3%
- o No Response 1-3.7%

22) What type of degree are you currently undertaking?

- o Bachelor's degree 15-55.6%
- o Master's degree 10-37.0%
- o Doctoral degree 1-3.7%
- o Other (please specify): 1-3.7%

23) What is your major/primary area of study? (n=25)

- Computer Science – 9
- Information Science – 2
- Adult and Organizational Change
- Advertising
- Computer Engineering
- Design
- Economics
- Electrical Engineering
- English

- German
- Instructional Technology
- Manufacturing Systems Engineering
- Mechanical Engineering
- Music
- Photojournalism
- Radio-Television-Film

24) How many different ~FAST Tex projects did you work on this semester?

- 1 19-70.4%
- 2 7-25.9%
- 3 1-3.7%

Appendix E:

~FAST Tex Project Quality Review Results

PROJECT 1 – Inexhaustible Dynamically Generated Study Questions and Classroom Interaction for Basic Statistics Courses.			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	3.50	2.25	2.88
Instructional Value Combined Score Mean	4.00	2.50	3.25
Total Combined Score Mean	3.40	2.40	2.90
Individual Items:			
Clarity of objectives	2	3	
Degree to which objectives were met	2	2	
Overall design	2	2	
Functionality	4	2	
Usability	4	2	
Scalability	4	3	
Ability to solve pedagogical problem	4	3	
Ability to support instructional best practices	4	2	
Ability to present content	4	3	
Overall instructional value	4	2	

PROJECT 2 – Virtual Manipulatives for Mathematics Learning			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	2.25	2.50	2.38
Instructional Value Combined Score Mean	2.75	3.25	3.00
Total Combined Score Mean	2.60	2.80	2.70
Individual Items:			
Clarity of objectives	5	2	
Degree to which objectives were met	1	3	
Overall design	3	3	
Functionality	2	2	
Usability	2	3	
Scalability	2	2	
Ability to solve pedagogical problem	2	3	
Ability to support instructional best practices	3	4	
Ability to present content	3	3	
Overall instructional value	3	3	

PROJECT 3 – Engineering Communication for Aerospace			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	2.25	2.25	2.25
Instructional Value Combined Score Mean	2.25	1.25	1.75
Total Combined Score Mean	2.20	2.20	2.20
Individual Items:			
Clarity of objectives	3	4	
Degree to which objectives were met	1	4	
Overall design	2	1	
Functionality	2	2	
Usability	2	3	
Scalability	3	3	
Ability to solve pedagogical problem	2	2	
Ability to support instructional best practices	2	1	
Ability to present content	3	1	
Overall instructional value	2	1	

PROJECT 4 – <i>Jenseits der Stille (Beyond Silence)</i> Website			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	3.50	3.00	3.25
Instructional Value Combined Score Mean	4.00	3.50	3.75
Total Combined Score Mean	3.90	3.30	3.60
Individual Items:			
Clarity of objectives	5	3	
Degree to which objectives were met	4	4	
Overall design	4	2	
Functionality	4	4	
Usability	4	4	
Scalability	2	2	
Ability to solve pedagogical problem	4	4	
Ability to support instructional best practices	4	4	
Ability to present content	4	3	
Overall instructional value	4	3	

PROJECT 5 – Cold Reading Experiment			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	2.50	3.75	3.13
Instructional Value Combined Score Mean	1.75	4.00	2.88
Total Combined Score Mean	2.30	3.80	3.05
Individual Items:			
Clarity of objectives	2	3	
Degree to which objectives were met	4	4	
Overall design	2	3	
Functionality	3	5	
Usability	3	4	
Scalability	2	3	
Ability to solve pedagogical problem	1	4	
Ability to support instructional best practices	2	4	
Ability to present content	2	4	
Overall instructional value	2	4	

PROJECT 6 – Mentoring Book Talks in Online Book Clubs: An Exploration			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	4.00	4.25	4.13
Instructional Value Combined Score Mean	4.00	5.00	4.50
Total Combined Score Mean	4.20	4.60	4.40
Individual Items:			
Clarity of objectives	5	5	
Degree to which objectives were met	5	4	
Overall design	4	5	
Functionality	4	3	
Usability	3	4	
Scalability	5	5	
Ability to solve pedagogical problem	5	5	
Ability to support instructional best practices	4	5	
Ability to present content	3	5	
Overall instructional value	4	5	

PROJECT 7 – Books R4 Kids Website			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	2.50	3.50	3.00
Instructional Value Combined Score Mean	1.00	4.00	2.50
Total Combined Score Mean	1.80	3.80	2.80
Individual Items:			
Clarity of objectives	3	4	
Degree to which objectives were met	1	4	
Overall design	3	3	
Functionality	2	4	
Usability	3	4	
Scalability	2	3	
Ability to solve pedagogical problem	1	4	
Ability to support instructional best practices	1	4	
Ability to present content	1	4	
Overall instructional value	1	4	

PROJECT 8 – Handbook of Diction for Singers			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	2.00	2.25	2.13
Instructional Value Combined Score Mean	1.00	1.50	1.25
Total Combined Score Mean	1.60	1.80	1.70
Individual Items:			
Clarity of objectives	3	2	
Degree to which objectives were met	1	1	
Overall design	2	3	
Functionality	1	1	
Usability	1	2	
Scalability	4	3	
Ability to solve pedagogical problem	1	1	
Ability to support instructional best practices	1	2	
Ability to present content	1	2	
Overall instructional value	1	1	

PROJECT 9 – Child Rearing Simulations: Learning About Life as a Parent			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	3.00	4.00	3.50
Instructional Value Combined Score Mean	2.50	5.00	3.75
Total Combined Score Mean	2.90	4.30	3.60
Individual Items:			
Clarity of objectives	4	5	
Degree to which objectives were met	3	2	
Overall design	3	4	
Functionality	3	4	
Usability	3	4	
Scalability	3	4	
Ability to solve pedagogical problem	3	5	
Ability to support instructional best practices	2	5	
Ability to present content	2	5	
Overall instructional value	3	5	

PROJECT 10 – Teaching Teams Program Website			
Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	3.75	2.25	3.00
Instructional Value Combined Score Mean	3.75	3.25	3.50
Total Combined Score Mean	3.70	2.90	3.30
Individual Items:			
Clarity of objectives	3	4	
Degree to which objectives were met	4	3	
Overall design	5	2	
Functionality	4	3	
Usability	3	2	
Scalability	3	2	
Ability to solve pedagogical problem	4	3	
Ability to support instructional best practices	5	4	
Ability to present content	3	3	
Overall instructional value	3	3	

PROJECT 11 – Biochemical Analysis of Human Movement

Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	2.00	4.00	3.00
Instructional Value Combined Score Mean	1.25	5.00	3.13
Total Combined Score Mean	1.70	4.60	3.15
Individual Items:			
Clarity of objectives	3	5	
Degree to which objectives were met	1	5	
Overall design	2	4	
Functionality	2	4	
Usability	1	4	
Scalability	3	4	
Ability to solve pedagogical problem	1	5	
Ability to support instructional best practices	1	5	
Ability to present content	1	5	
Overall instructional value	2	5	

PROJECT 12 – Online Academic Research Community

Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	3.75	4.00	3.88
Instructional Value Combined Score Mean	3.50	2.75	3.13
Total Combined Score Mean	3.70	3.50	3.60
Individual Items:			
Clarity of objectives	4	5	
Degree to which objectives were met	4	3	
Overall design	3	4	
Functionality	4	4	
Usability	4	4	
Scalability	4	4	
Ability to solve pedagogical problem	3	3	
Ability to support instructional best practices	4	2	
Ability to present content	3	3	
Overall instructional value	4	3	

**PROJECT 13 – Integrated Simulation and Visualization of Rigid Body Motion with Applications
Spacecraft Dynamics**

Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	3.75	3.00	3.38
Instructional Value Combined Score Mean	4.00	3.25	3.63
Total Combined Score Mean	4.00	3.20	3.60
Individual Items:			
Clarity of objectives	4	4	
Degree to which objectives were met	5	3	
Overall design	5	3	
Functionality	4	4	
Usability	3	3	
Scalability	3	2	
Ability to solve pedagogical problem	4	4	
Ability to support instructional best practices	4	3	
Ability to present content	4	3	
Overall instructional value	4	3	

PROJECT 14 – Shakespeare Studies at the University of Texas at Austin

Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	4.00	3.50	3.75
Instructional Value Combined Score Mean	4.75	3.75	4.25
Total Combined Score Mean	4.10	3.70	3.90
Individual Items:			
Clarity of objectives	4	4	
Degree to which objectives were met	2	4	
Overall design	4	4	
Functionality	3	4	
Usability	4	3	
Scalability	5	3	
Ability to solve pedagogical problem	5	4	
Ability to support instructional best practices	5	3	
Ability to present content	5	4	
Overall instructional value	4	4	

PROJECT 15 – Fishes of Texas Web Database of Live Fish Photographs

Composite Scores:			
	Reviewer 1	Reviewer 2	Combined
Design & Function Combined Score Mean	4.50	3.00	3.75
Instructional Value Combined Score Mean	4.00	2.75	3.38
Total Combined Score Mean	4.20	3.30	3.75
Individual Items:			
Clarity of objectives	4	5	
Degree to which objectives were met	4	5	
Overall design	4	2	
Functionality	5	3	
Usability	4	3	
Scalability	5	4	
Ability to solve pedagogical problem	4	2	
Ability to support instructional best practices	4	3	
Ability to present content	4	3	
Overall instructional value	4	3	