Executive Summary

The following report details findings from a survey that collected data on student assessments of MyGateway in classes from Winter Semester 2002. The survey instrument was designed to collect data regarding the computing capability and resources available to students, the degree of use made of MyGateway in select classes, and the perceptions of students regarding the use of MyGateway in classes. We sampled ten per cent of the courses using MyGateway. High use classes were distinguished from low use classes based on the instructor’s use of the administrative tool, the Control Panel (low use group: 9 or fewer access days; high use group: 10 or more access days; median for the sample was 8). We especially focused on the degree of use of MyGateway by classes to help us better understand how students in classes that use it more compare to those in classes that use it less.

Highlights from the survey follow:

- Approximately two-thirds (65%) of the students indicated they own a Pentium class, personal computer.
- Sixty per cent (60.5%) of students access MyGateway primarily off campus.
- Seventy-five per cent (75%) of students indicated they were satisfied with their access speed to MyGateway.
- When compared to those accessing on campus, students accessing MyGateway from off campus were statistically more likely (p < .05) to disagree with the following statement, “It takes more effort to complete a course that uses online resources like MyGateway.” Specifically, students in classes with high use of MyGateway were more likely to:
  - review lecture notes for clarification
  - discuss ideas with other students
  - actively participate in the course
  - work on assignments with other students
  - complete assignments on time
  - access other online materials related to course content
  - spend more time studying for the course
- Students in classes with high use of MyGateway were statistically more likely (p < .05) to:
  - agree that they are very satisfied with the course
  - agree they would like to have MyGateway used in other courses
- Students in classes with high use of MyGateway were more likely (p < .05) to:
  - agree that they were more able to seek clarification
  - receive instructor comments on assignments quickly
  - communicate with their instructor
- Benefits to students in high use courses paralleled those listed by students in low use courses. The top three were identical, in a different order: access to “course materials” was the most-frequently mentioned benefit, next, “grades” and “communication with instructor.”
- Students in both low use (11%) and high use (29%) courses indicated “no problems” in using MyGateway. For high use courses the next most frequently cited problems related to “slow log in and download” issues (7.1%), as well as “limited use of MyGateway by the instructor” (3.8%). In low use classes, the most frequently cited problems related to
“limited use of MyGateway by the instructor” (12.3%) and the “non-use of My Gateway” (5.2%). Overall, the percentage of students reporting problems was very small.

Like many institutions of higher learning, the University of Missouri-St. Louis faces significant challenges involving technology integration. MyGateway was introduced as UM-St. Louis’ course management system two years ago. Faculty and students are making significant strides incorporating MyGateway into the learning process. Nevertheless, many challenges remain. Increasing faculty acceptance of online course management is the most significant challenge noted in this study. It seems clear from our findings that the more students use MyGateway, the more they appreciate its benefits. Therefore, the key to successful integration of MyGateway into the learning process lies with the faculty.

The MyGateway evaluation team included Cheryl Bielema, Larry Irons, Robert Keel, Takashi Fujimoto, and Supaporn Triyakul.

For further information about the results, please contact Cheryl Bielema (314.516.7134), email bielema@umsl.edu or Robert Keel (314.516.6052), email rok@umsl.edu.

The full report begins on page 3 of this document.
Comprehensive Evaluation of MyGateway Use by Faculty and Students

Report of WS 2002

Purpose

The purpose of evaluating the ongoing efforts in technology-enhanced credit courses, making use of the course web management tool, MyGateway, is to document the experiences of two key stakeholders: enrolled students and teaching faculty. Secondly, the areas of questioning and subsequent analyses will focus on identification of essential support strategies for faculty using technology and the improvement of learning experiences for our students. Objectives include:

- Development of a baseline profile of UMSL students' computing capabilities and sophistication,
- Documentation of the use of MyGateway features by selected faculty in WS 2002
- Indicators of optimal teaching and learning interactions between and among faculty and students.

Key evaluation questions determined by the process owners (Information Technology Services and Center for Teaching Excellence) are:

1. Who are the students (enrollment in degree programs; hours completed; computing and access capabilities)?
2. How did faculty and students use the electronic learning environment?
3. Will future course selection and degree completion be influenced by MyGateway use in the current semester?
4. What did participants learn from their experiences?
5. What do students recommend as improvements for technology-enhanced courses?

Methodology

A stratified random sample (10 percent of "active" courses within MyGateway) was selected according to levels of faculty use of the course management tool MyGateway [total courses=636, N=66, participated=45 (68%)]. The courses were designated low use if faculty had logged 9 days or less in Control Panel accesses; high use if faculty had logged 10 or more days of Control Panel accesses by March 15, 2002 (sample median was 8, mean 11). Instructors were contacted for participation and scheduled for in-class completion of the questionnaires during the evaluation period, April 8-May 10, 2002.

Completed surveys by undergraduate and graduate students numbered 776 (70%) [approximate enrollment in sample=2000 (11,304=total student enrollment in MyGateway classes), approximate enrollment in participating courses=1100]. Low use courses numbered 16; high use courses numbered 15 for administering surveys, in class. Students in an additional 14 courses were offered the online survey (only), as the instructors preferred that method or they were teaching “distance learning” courses. Fifteen more courses in the original selected sample of 60 were not included in the student survey. The reasons varied -- either the courses were already completed (8-weeks only) and students were not longer identifiable, or faculty declined to participate when contacted.

Students responding in high use courses numbered 393, while 383 students in low use courses responded. Of the total number of respondents, 110 completed online surveys. The response rate was substantially lower for the online surveys than for face-to-face surveying.
Areas of questions included in the MyGateway Student Survey were:

- Computing and Internet Access Capabilities
- Learning Tasks Compared in Courses using MyGateway and Those NOT Using MyGateway
- Individual Experiences Using Electronic Media for Course Activities and Communication
- Academic Goals regarding Expected Grades and Degree Completion

Who Are the Students Responding (Low Use/High Use)

Half of these respondents were undergraduate students within their first two years, while an additional 20 percent on average reported having earned an Associate’s degree. There were slightly more undergraduates in the high use group (No Degree and AA/AAS combined), while the low use group comprised a greater number of students having previously completed their Bachelor’s or Master’s degrees. Five percent of the students participating in the study reported having earned an advanced degree.

Table 1. Highest Degree Earned

<table>
<thead>
<tr>
<th>Degree Earned</th>
<th>Percent WS2001</th>
<th>Percent FS2001</th>
<th>Percent WS2002 (Low)</th>
<th>Percent WS2002 (High)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Degree</td>
<td>51.0</td>
<td>60.5</td>
<td>51.6</td>
<td>48.5</td>
</tr>
<tr>
<td>AA/AAS</td>
<td>23.0</td>
<td>15.2</td>
<td>16.0</td>
<td>24.7</td>
</tr>
<tr>
<td>BA/BS</td>
<td>20.5</td>
<td>14.4</td>
<td>23.4</td>
<td>18.3</td>
</tr>
<tr>
<td>MS/MA/PhD/EdD</td>
<td>3.2</td>
<td>8.2</td>
<td>5.4</td>
<td>4.0</td>
</tr>
</tbody>
</table>

An additional question asked students about the number of credits earned at the time of the survey. Hours were sub-divided by 15 semester-hour segments. Twenty-one percent (21.7%) appeared to be in their first semester at UMSL, indicating 0-15 credits; 20.5 percent had earned 16-30 credits; 11.5 percent, 31-45 credits, while 11.9 percent checked 46-60 semester hours. Those accumulating 60+ credits comprised 34 percent of the respondents.

Computers and Access for Students

Technology requisites are a computer and Internet access. Students were asked to check primary computer access and capabilities they had available. Types of Computer, Primary Access Location, and Type of Internet Connection are the three tables that follow.

Over 60 percent (61.6%) of the respondents reported owning a new computer (e.g., Pentium), in the current fall semester. Slightly fewer students in low use courses than those in the high use courses indicated having the newer computers. Students owning older computer was in the range reported in previous years. There was a slight increase of those reporting a Macintosh, to 3.4 percent from the previous semester, but it was within the range overall. “Other” computers represented 10.8, a lower percentage than previous students in our survey sample. A higher percent of these students indicated they didn’t know what type of computer they owned (10.5) than previously reported. The percent of students not owning a personal computer has varied from semester to semester. The range is a high of 16.5% in the first semester of surveying, FS 2000, to 9.8% in the current survey.
Table 2. Types of Computers Owned by Students

<table>
<thead>
<tr>
<th>Computer Types</th>
<th>Percent, WS01</th>
<th>Percent, FS01</th>
<th>Percent, WS02</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC, Pentium or newer</td>
<td>60.5</td>
<td>62.2</td>
<td>61.6</td>
</tr>
<tr>
<td>PC, 486 or older</td>
<td>4.4</td>
<td>2.4</td>
<td>3.9</td>
</tr>
<tr>
<td>Macintosh</td>
<td>4.4</td>
<td>2.7</td>
<td>3.4</td>
</tr>
<tr>
<td>Other</td>
<td>11.8</td>
<td>12.7</td>
<td>10.8</td>
</tr>
<tr>
<td>Don't Know</td>
<td>9.4</td>
<td>5.4</td>
<td>10.5</td>
</tr>
<tr>
<td>No personal computer</td>
<td>9.5</td>
<td>14.4</td>
<td>9.8</td>
</tr>
</tbody>
</table>

Students in the High Use and Low Use courses had very similar access to the Internet. High use students were dialing in via a modem with slightly greater frequency, while students in low use courses appeared to be using student housing or other UMSL computers more frequently.

Table 3. Primary Access Location

<table>
<thead>
<tr>
<th>Internet Access Location</th>
<th>Percent, WS01</th>
<th>Percent, FS01</th>
<th>Percent WS02 (Low)</th>
<th>Percent WS02 (High)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off campus, via modem</td>
<td>65.2</td>
<td>69.8</td>
<td>29.2</td>
<td>31.3</td>
</tr>
<tr>
<td>Student or dept. computer labs</td>
<td>26.2</td>
<td>21.0</td>
<td>12.4</td>
<td>12.9</td>
</tr>
<tr>
<td>Student Housing</td>
<td>4.7</td>
<td>4.8</td>
<td>4.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Other UMSL computers</td>
<td>3.3</td>
<td>4.3</td>
<td>3.3</td>
<td>2.7</td>
</tr>
</tbody>
</table>

If a student’s primary access was from off campus, they were asked specifics about the type of Internet connection: dial-up telephone via modem, dial up with DSL, cable modem, or other. See Table 4 for connection details of both groups.

Again, the two groups of students were similar, with cable modems used a little more frequently by the high use students than those in the low use group.

Table 4. Type of Internet Connection to UMSL Servers

<table>
<thead>
<tr>
<th>Internet Connection</th>
<th>Percent, Low Use</th>
<th>Percent, High Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dial-up Modem</td>
<td>37.4</td>
<td>37.7</td>
</tr>
<tr>
<td>DSL</td>
<td>6.2</td>
<td>6.2</td>
</tr>
<tr>
<td>Cable Modem</td>
<td>4.4</td>
<td>5.7</td>
</tr>
<tr>
<td>Other</td>
<td>1.8</td>
<td>.6</td>
</tr>
</tbody>
</table>
Satisfaction with individual Internet access speed was questioned. Slightly more than 75% of students indicated they were satisfied with speed of Internet access overall. Comparing high use and low use responses revealed greater dissatisfaction among the high use group than the low use group. Important to future educational applications using multimedia is the fact that 88% of the students responded that their personal computers were “multimedia capable.” Capability among high use students was slightly higher (46%) than for low use students (42.3%).

Table 5. Satisfaction with Personal Internet Access Speed

<table>
<thead>
<tr>
<th>Satisfaction with Access Speed</th>
<th>Percent, Low Use</th>
<th>Percent, High Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied to Very Satisfied</td>
<td>38.9</td>
<td>37.3</td>
</tr>
<tr>
<td>Dissatisfied to Very Dissatisfied</td>
<td>10.5</td>
<td>14.2</td>
</tr>
</tbody>
</table>

Learning With and Without MyGateway

We examined the relationship of access location and use to student perceptions of MyGateway by:

1) distinguishing students who primarily use it on campus from those who primarily use it off campus

2) distinguishing low use from high use classes.

We used an independent samples t-test to analyze each of these independent variables (access location and use) in relation to specific items from the MyGateway survey for Winter Semester 2002 (see Appendix A). In particular, our focus was on each independent variable in relation to items that address Learning Activity (questions 9, 11 – 16), Student Satisfaction (questions 33, 35, 36, 37, 38), and Student/Teacher Communication (questions 8, 10, 17, 32).

Access Location and MyGateway Student Evaluations

Our first concern in analyzing access location was to examine its predictive relationship to the responses of students using MyGateway. To the extent that students have to travel to campus to use computers with access to the network we might expect those students to experience disadvantage in learning activities, lower satisfaction, and poorer student/teacher communication. Specifically, our interest was in examining the relationship of access location (either on campus or off campus) to students’ responses to items relating to Learning Activity, Student Satisfaction, and Student/Teacher Communication.
Question 35 was the only item from the MyGateway survey that indicated a significant relationship ($p < .05$) between the access location of students and their response. Question 35, a student satisfaction item, stated: “It takes more effort to complete a course that uses online resources like MyGateway.” Students accessing MyGateway from home were statistically more likely to disagree with Question 35. Alternatively, those students accessing MyGateway at campus locations were more likely to agree with Question 35. Thus, we found limited support for the hypothesis that students who have to come to campus to use MyGateway resources experience lower satisfaction. We found no support for the hypothesized relationship between access location and any of the other dependent variables measured.

**Degree of Use and MyGateway Student Evaluations**

In addition to access location the survey items allowed us to analyze differences between students in classes with low use of MyGateway and students in classes with high use. Our working hypothesis was that increased exposure to classes using MyGateway results in higher degrees of learning activity, satisfaction, and student/teacher communication.

**Use Of MyGateway In Relation To Learning Activity**

<table>
<thead>
<tr>
<th>Question</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q9</td>
<td>6.65</td>
<td>694</td>
<td>.000</td>
<td>.10</td>
<td>.15</td>
</tr>
<tr>
<td>Q11</td>
<td>3.31</td>
<td>681</td>
<td>.001</td>
<td>.50</td>
<td>.15</td>
</tr>
<tr>
<td>Q12</td>
<td>4.00</td>
<td>690</td>
<td>.000</td>
<td>.58</td>
<td>.14</td>
</tr>
<tr>
<td>Q13</td>
<td>2.49</td>
<td>675</td>
<td>.013</td>
<td>.38</td>
<td>.15</td>
</tr>
<tr>
<td>Q14</td>
<td>5.30</td>
<td>689</td>
<td>.000</td>
<td>.79</td>
<td>.15</td>
</tr>
<tr>
<td>Q15</td>
<td>5.19</td>
<td>694</td>
<td>.000</td>
<td>.71</td>
<td>.14</td>
</tr>
<tr>
<td>Q16</td>
<td>3.81</td>
<td>690</td>
<td>.000</td>
<td>.56</td>
<td>.15</td>
</tr>
</tbody>
</table>

**Table 7: Learning Activity Items (independent samples t-test)**
Every Learning Activity item measured by the MyGateway survey indicated that students in low use classes are more likely (p < .05) to disagree with positive statements about learning activities in MyGateway classes. Thus, students in classes with high use of MyGateway were more likely to review lecture notes for clarification (Question 9), discuss ideas with other students (Question 11), actively participate in the course (Question 12), work on assignments with other students (Question 13), complete assignments on time (Question 14), access other online materials related to course content (Question 15), and spend more time studying for the course (Question 16).

Use of MyGateway in Relation to Satisfaction

<table>
<thead>
<tr>
<th>Question</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q33</td>
<td>5.77</td>
<td>700</td>
<td>.000</td>
<td>.83</td>
<td>.14</td>
</tr>
<tr>
<td>Q34</td>
<td>.023</td>
<td>690</td>
<td>.982</td>
<td>3.32</td>
<td>.15</td>
</tr>
<tr>
<td>Q35</td>
<td>-.52</td>
<td>697</td>
<td>.604</td>
<td>-7.65</td>
<td>.15</td>
</tr>
<tr>
<td>Q36</td>
<td>2.86</td>
<td>715</td>
<td>.004</td>
<td>.37</td>
<td>.13</td>
</tr>
<tr>
<td>Q37</td>
<td>1.28</td>
<td>703</td>
<td>.201</td>
<td>.20</td>
<td>.16</td>
</tr>
<tr>
<td>Q38</td>
<td>1.23</td>
<td>692</td>
<td>.220</td>
<td>.19</td>
<td>.16</td>
</tr>
</tbody>
</table>

Table 8: Satisfaction Items (independent samples t-test)

Two items related to student satisfaction with courses using MyGateway indicate that students in low use classes were more likely (p < .05) to disagree with positive statements about their satisfaction with MyGateway classes. Thus, students in classes with high use of MyGateway were more likely to agree that they are very satisfied with the course (Question 33) and that they would like to have MyGateway used in other courses (Question 36). In comparing high and low use groups, MyGateway has no discernable effect on re-enrollment (Question 37) or student retention (Question 38).

Use of MyGateway in Relation to Student/Teacher Communication

<table>
<thead>
<tr>
<th>Question</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8</td>
<td>4.506</td>
<td>700</td>
<td>.000</td>
<td>.62</td>
<td>.14</td>
</tr>
<tr>
<td>Q10</td>
<td>5.603</td>
<td>700</td>
<td>.000</td>
<td>.83</td>
<td>.15</td>
</tr>
<tr>
<td>Q17</td>
<td>4.859</td>
<td>701</td>
<td>.000</td>
<td>.71</td>
<td>.15</td>
</tr>
<tr>
<td>Q32</td>
<td>.714</td>
<td>702</td>
<td>.475</td>
<td>.11</td>
<td>.16</td>
</tr>
</tbody>
</table>

Table 9: Student/Teacher Communication Items (independent samples t-test)

Three items related to student/teacher communication in courses using MyGateway indicated that students in low use classes were more likely (p < .05) to disagree with statements about their degree of communication with faculty in MyGateway classes. Thus, students in classes with high use of MyGateway were more likely to agree that they were more able to seek clarification (Question 8), receive instructor comments on assignments quickly (Question 10), and communicate with their instructor (Question 17).
Discussion

The data presented above indicate that increased use of MyGateway results in higher estimates of learning activity, higher degrees of satisfaction, and more student/teacher communication. Thus, the data from the current MyGateway survey support the contention that the more students are exposed to MyGateway the higher their estimation of its positive affects.

Benefits of Using MyGateway

Students described more specific experiences in using MyGateway. They responded to open-ended questions: “what are the benefits of using MyGateway,” and “did you have any problems using MyGateway?” For comparison of the two groups of students, responses are compiled in the following charts and graphs along with discussion of the similarities and differences.

Table 10. Benefits to Students in Low Use Courses

Two hundred sixteen (216) respondents in the low use courses answered the open-ended questions seeking further descriptions of their personal experiences with MyGateway. Two hundred sixty-eight (268) respondents from the high use courses described their experiences. That represented slightly over 60 percent of the total respondents in each group.

Benefits to students in low use courses were predominantly in two areas: availability of “grades” and “course materials” on the individual course sites. Primarily, they mentioned the syllabus being available, but students also requested class notes or lecture outlines.

Having an easy means to “communicate with one’s instructor” was the third most-frequently mentioned benefit. Also termed benefits were “convenient access” and “email to and from fellow
Benefits to students in _high use_ courses paralleled those listed by students in _low use_ courses. The top three were identical, in a different order: access to “course materials” was the most-frequently mentioned benefit, next, “grades” and “communication with instructor.” New themes were noted: My Gateway helps me be connected,” “helps me organize,” provides “opportunity for clarification,” and I’m “better prepared for [face-to-face] class.” The benefits of “faster instructor feedback,” access to “online practice tests,” “online discussions” and “web sites were also listed.

With just two exceptions (“online discussions” and “web sites and library”), there were more students in the _high use_ courses mentioning these benefits than students in the _low use_ courses.

**Problems in Using My Gateway**

Were students in the _low use_ group more likely to describe problems than those in the _high use_ group? Not necessarily, according to the numbers of responses to the question, “Did you have any problems using My Gateway?” A slightly higher percent (35.7%) of students in the _low use_ group mentioned problems than in the _high use_ group (27.0%).

In an attempt to isolate similarities and differences in the types of problems encountered by these two groups of students, the volunteer comments were sorted in an iterative fashion, starting first with the research team separately determining themes for one of the groups. In subsequent discussions, new and more descriptive categories were named. The evaluators then regrouped
comments to fit the new categories. “Outliers,” those comments not fitting the final group of categories, were also noted.

The final problem categories are in rank order of being mentioned by students. Note: the numbers following each category are summed totals of both groups.

- NO PROBLEMS (156)
- Instructor's limited use of MG (62)
- Slow /multiple logins or slow download (35)
- ALL instructors should use MG (31)
- MG not used in course (20)
- MG crashes/software incompatibility (17)
- Email problems (16)
- Access/passwords didn't work (9)

- Training for students needed (9)
- Inconsistent use of MG by faculty (9)
- F2F learning preferences (7)
- Course content doesn't work well online (6)
- Lack of computer skills (4)
- Training for instructors needed (4)
- MG of no benefit to students (2)

Table 12. Problems of Students in Low Use Courses

<table>
<thead>
<tr>
<th>Problem</th>
<th>No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Problems</td>
<td>50</td>
</tr>
<tr>
<td>Instructor’s Limited MG Use</td>
<td>47</td>
</tr>
<tr>
<td>MG Not Used</td>
<td>41</td>
</tr>
<tr>
<td>ALL Instructors Use MG</td>
<td>20</td>
</tr>
<tr>
<td>MG/Software Incompatibility</td>
<td>16</td>
</tr>
<tr>
<td>Slow Logins/Download</td>
<td>9</td>
</tr>
<tr>
<td>Access/Passwords Didn’t Work</td>
<td>7</td>
</tr>
<tr>
<td>Email Problems</td>
<td>7</td>
</tr>
<tr>
<td>Appropriate Course Content</td>
<td>6</td>
</tr>
<tr>
<td>Conten</td>
<td>6</td>
</tr>
<tr>
<td>F2F Preferences</td>
<td>6</td>
</tr>
<tr>
<td>Lack of Computer Skills</td>
<td>4</td>
</tr>
<tr>
<td>Training for Students Needed</td>
<td>4</td>
</tr>
<tr>
<td>Inconsistent Use of MG</td>
<td>3</td>
</tr>
<tr>
<td>MG Training Needed</td>
<td>2</td>
</tr>
<tr>
<td>No Personal Benefit</td>
<td>2</td>
</tr>
</tbody>
</table>

Among students in low use courses, the two major problems were “instructor’s limited use of MyGateway” (n=47) and “My Gateway was not used at all in the course” (n=20). Additionally, 15 students suggested, “all instructors should use My Gateway,” when prompted for problems.

Technical difficulties experienced by students in low use courses were in the following areas: “My Gateway crashes or software doesn’t work with My Gateway” (9); “passwords or Internet access didn’t work” (7) “slow log-in process or slow download of data” (7); “Email problems” (5). Eight (8) students mentioned “lack of computer skills” or their “need for MyGateway training.” Questions regarding the “appropriateness of course content for online delivery,” and “preferences for face-
to-face classes” was another theme, as was “inconsistent use of MyGateway features by faculty” or “training needs of faculty” identified by these low use students.

Table 13. Problems of Students in High Use Courses

<table>
<thead>
<tr>
<th>Problems Reported in High Use Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Problems</td>
</tr>
<tr>
<td>Instructor's limited MG Use</td>
</tr>
<tr>
<td>Don't really use it</td>
</tr>
<tr>
<td>All Instructors Use MG</td>
</tr>
<tr>
<td>MG Software INCAPABILITY</td>
</tr>
<tr>
<td>Slow Login/Download</td>
</tr>
<tr>
<td>Access/Password didn't work</td>
</tr>
<tr>
<td>Email Problems</td>
</tr>
<tr>
<td>F2F Preference</td>
</tr>
<tr>
<td>Student Training need</td>
</tr>
<tr>
<td>Inconsistent Use of MG</td>
</tr>
<tr>
<td>Faculty Training needed</td>
</tr>
<tr>
<td>Discussion Board problem</td>
</tr>
<tr>
<td>No Internet/Equal Access</td>
</tr>
<tr>
<td>More users friendly</td>
</tr>
</tbody>
</table>

There were comments indicating “no problems” in using MyGateway in both groups. Low use course respondents numbered 41, while 115 high use respondents stated they had no problems using MyGateway.

Among students in high use courses, the two major problems were “slow login/download” (n=28) and “Instructor’s limited MG use” (n=15). Additionally, 16 students suggested, “all instructors should use My Gateway.”

Technical difficulties experienced by students in high use courses were in the following areas: “Email problems” (n=11), “MG software incapability” (n=8), and “Discussion Board problems” (n=5). Also, 5 students stated that students should be trained and 2 students stated that faculty should be trained. Moreover, 5 students mentioned the “inconsistent use of MyGateway by faculty” was a problem, and 2 students indicated they had had “access and password problems.” Besides these, there was a concern about no equal access to Internet (n=4) and that they preferred “face-to-face instruction” (n=2). Finally, 2 students stated that they would like MyGateway to be more user friendly.

Comparison of Experiences Among Students in High Use and Low Use Courses

There were similarities as well as differences in experience among students as they reported personal benefits and problems in using MyGateway. Similarities included the types of basic MyGateway functions instructors were utilizing as well as what students especially liked about the course management tool (i.e., the most frequently mentioned benefits in both groups – access to course materials and grades). Differences among the two student groupings had to do with the variety and “higher order” learning tasks they had individually accomplished (i.e., further
understanding with questions, a more dynamic dialogue with my instructor, better prepared for class).

**Similarities in Experiences**

It is apparent that instructors are using MyGateway for certain basic functions – primarily, for sharing course materials and for course management tasks (e.g., posting of grades and communicating with individual students). The convenience of being able to access class materials “anytime – anyplace” was an oft-mentioned benefit. Having had access to grades through MyGateway seemed particularly important to the students, too.

Students reported using the instructor’s and other students’ email through MyGateway and alluded to the easy and convenient access, rather than telephoning or meeting with their instructors during face-to-face office hours.

Students in both groups refer to instructor's limited use of MG as a problem. The low use group mentioned it more often (n=47) than did the high use group (n=15). Both groups advocated the adoption of MyGateway across the University. Their written suggestions were supported by Q. 36 “I would like My Gateway used in other courses,” as 73.8 percent agreed with the statement; 13.4 percent were neutral; and, 12.7 percent disagreed.

It appears that many instructors are not using other MyGateway features to which students referred in their comments (e.g., online quizzes for either exam preparation or to assess competencies). For those who do have access to practice quizzes, there is strong support to implement this learning method.

Also, a small number of students in both groups indicated that they, and others, needed help in using MyGateway. The passwords, Internet Service Provider (ISP) peculiarities, and too many log-ins for MyGateway and student email were mentioned as problem areas.

**Differences in Experiences**

Differences in experience were notable in the variety of benefits mentioned by students in the high use courses. Low use students confined benefits to specific features provided by MyGateway, while high use students broadened their comments to include certain learning tasks facilitated by the online environment. As to unique benefits, help in staying connected to the class, getting instructor feedback faster, help in organizing self, and opportunities for clarification, were listed by those in high use classes.

- **Accessibility of information at awkward times, user friendly, well organized platform**
- **Quicker interaction between student and teacher – Communication moves quickly**
- **Helps me stay organized – It makes the class more organized**
- **I am more prepared for class if notes are posted early enough that I can print them out**
- **Opportunity for clarity – to further understanding through questions [posted to Discussion Board]**
- **Extra study materials are posted…I don’t have to check extra material out of the library**
- **Ability to get more descriptive instruction.**

The students, many of whom are adults with full time jobs and families, appreciated not having to travel to campus for library resources or to meet with student groups. The universal access to materials was frequently mentioned by both groups of students.

- **Especially because UMSL is a commuter campus, it is very useful to be able to access course information, contact instructors and stimulate “community” interaction (via discussion boards).**
One group of students was pleased with the wide variety of MyGateway features their instructor had integrated. On the flip side there were many references to the limited use of MyGateway by instructors being a problem.

- If a professor uses it, he/she should use it for every aspect of the course, not a selected few
- There isn’t much on [our MyGateway course site] to help us understand the course any better
- I really liked the way it works…. just get all professors using it
- [MyGateway is] a waste of time. Either all teachers need to use it or no teachers.

Differences in problem statements were more pronounced than similarities between the two groups of students. High use students seemed to think more globally, while less use students were more focused on their individual needs or problems. Here are a few examples from the high use students.

- I think that those in the class were extremely busy. As a result, I don’t think we utilized My Gateway as well as we might have
- If a day or two is scheduled to teach students how to use the system, it would have been beneficial – [provide] more time with learning all tools available with MyGateway
- My concern is students who do not have equal access to the Internet and computer resources

The low use students more often stated preferences for face-to-face instruction or questioned the “appropriateness” of the content for online delivery. Representative comments included:

- Nursing courses aren’t appropriate for independent learning on MyGateway
- I hate discussion boards. Class discussion should be in class, face to face
- Verify classes taught over M Gateway should/are able to be taught over web (e.g., assessments)

Two statements from low use students mentioned MyGateway as being of no benefit to them. High use students did not record the same thought.

- I don’t know what could save “MyGateway;” it just is a bigger pain than it’s worth
- I think it’s a crazy contraption which has no real benefit for students.

Implications and Recommendations

Student Support Services Suggested
Comments by a very small number of students indicate that they need multiple venues to get My Gateway help, especially at the onset of a semester. Knowing the computing and access requirements and where to get accurate advice quickly (when problems happen) are important to students’ success. Training in how to print out notes from PowerPoint presentations rather than individual slides was indicated by several students’ problem statements.

Links to library services and help in understanding when they must log on from campus computers to gain full access to databases was also indicated.

Multiple log-ins required from MyGateway to student email was a source of frustration and misunderstanding for many of the respondents. Written explanations regarding some of the most common issues would provide students a heads-up and might allay perceptions of this being a problem.

Instructional Improvements Suggested
Students increasingly request most or all MyGateway features be used in their courses. Several students were emphatic about making the use of MyGateway mandatory in future courses. Depending on the subject matter, integrating more of the MyGateway components would help
increase instructor-student interaction and increased interaction among students, according to this student sample.

Instructional improvements were also indicated in the following areas:

Syllabi and assignments should be available on the individual course web sites. Further, the syllabus ought to include both the expectations and extent of students’ online participation and the existing resources available to help them. If grades will be routinely posted on the course site, students would like to know that.

Better organization of course materials in folders and specific locations were also recommended. Planners of curricula may eventually suggest common folder names and documents to provide consistency among sections and courses in the various departments and colleges.

Recommendations for Faculty Support

With regard to increasing support for the faculty we suggest a concerted focus on using MyGateway itself as a communication channel for community building. Features exist in MyGateway to control the content offered to specific audiences, so that the faculty community is presented one interface with some unique content elements and the students another. To a limited extent this is already done and what we suggest is a concerted focus on using MyGateway in this manner. Currently there are efforts made to share success stories and tips in workshops and other venues. Those efforts can be augmented online by presenting via MyGateway the success stories and tips of faculty users to the community of faculty members using MyGateway.

Broadly, implications drawn from the data will guide technology planning and support provided by Information Technology Services and the UM-St. Louis Office of Academic Affairs. They include several important instructional strategies (i.e., greater use of MyGateway features, community building, and syllabus development to include online expectations) for faculty implementation. Future support and faculty development will continue to focus on those things that will help improve our students’ learning outcomes and satisfaction, as well as augment the instructional goals of our faculty members.

The MyGateway evaluation team included Dr. Cheryl Bielema, Takashi Fujimoto, Larry Irons, Robert Keel, and Supaporn Triyakul.

For further information about the results, please contact Cheryl Bielema (314.516.7134), email bielema@umsl.edu or Robert Keel (314.516.6538), email rok@umsl.edu.
Appendix A

University of Missouri, St. Louis
My Gateway WS2002 Course Survey
MyGateway WS2002 Course Survey

Please complete the survey based on your experiences with MyGateway, the web course management tool. Most of the questions ask for one response (based on your priority or primary experience). If a question is not applicable, please leave it blank.

Your responses are anonymous. Your participation is completely voluntary, and you are free to refuse to answer any questions that you find objectionable. Information Technology Services thanks you for your participation. Your input will be useful as we plan student support and develop new technologies.

1. My primary location for accessing the Internet is (mark only one)
   A. UMSL student computer lab
   B. Other UMSL computers (e.g., libraries)
   C. UMSL student housing
   D. Departmental labs
   E. Web TV
   F. Off-campus using a modem

2. If you own a computer that you use for school, please indicate what kind. If you don't own a computer, please leave blank and go to next question. (mark only one)
   A. 486 or older PC
   B. Pentium or newer PC
   C. Mac
   D. Other
   E. I don't know

3. If your primary access is through UMSL's computer labs, how long do you usually wait for a computer? (mark only one)
   A. 0-5 minutes
   B. 6-15 minutes
   C. 16-30 minutes
   D. More than 30 minutes

4. If you connect to the Internet from home, what type of Internet connection do you have?
   A. Dial-up modem
   B. DSL
   C. Cable Modem
   D. Other, please specify ______________

4b. If you use UMSL's dial-up, what percentage of the time do you find it busy? (mark only one)
   A. 0-10%
   B. 11-25%
   C. 26-50%
D. 51-75%
E. 76-100%

4c. Please list your area code and telephone exchange (area code and first three digits, e.g. 314-516):

________________ __________

5. How satisfied are you with the speed at which your computer system connects to the Internet or World Wide Web?
   A. Very satisfied
   B. Satisfied
   C. Dissatisfied
   D. Very dissatisfied

6. Which Internet/World Wide Web browser do you use? (mark only one--the primary browser you use)
   A. Netscape
   B. Microsoft Internet Explorer
   C. Other

   6b. If known, please give the version of browser you use (e.g., Netscape 4.5)
   ______________________

7. Are you able to play multimedia, CD-ROMs with sound, movies, etc. on your computer?
   a. Yes
   b. No

For questions 8-29, please compare this course with other courses you have taken that did not use "MyGateway."
(Please indicate how strongly you agree or disagree with each statement by marking the corresponding letter according to the scale below).

Because of using MyGateway in this class (in comparison to courses that did not use MyGateway) I was more likely to:

8. Seek clarification when I did not understand something.
   Strongly Agree A B C D E F G Strongly Disagree

9. Review lecture notes to gain clarification.
   Strongly Agree A B C D E F G Strongly Disagree

10. Receive instructor comments on assignments quickly.
   Strongly Agree A B C D E F G Strongly Disagree

11. Discuss ideas from this course with other students.
12. Actively participate in the course.

13. Work on assignments with other students.

14. Complete assignments on time.

15. Access other online materials related to the content of this course.

16. Spend more time studying for the course.

17. Communicate with my instructor.

18. Receive feedback on quizzes and exams quickly.

19. Refer to course syllabus material.

20. Learn course content because the instructor used online quizzes.
21. Think more about course topics because of the online discussions.

**Because the instructor required the computer and MyGateway:**

22. I spent too much time learning to use "MyGateway".

23. I spent too much time trying to gain access to a computer.

24. I was often distracted by activities that did not involve the use of computers.

25. I spent too much time trying to log on to UMSL's computer network.

26. I was at a disadvantage because I do not possess adequate computer skills.

27. I was at a disadvantage because I do not possess adequate keyboard skills.

28. I acquired skills that will be useful in my chosen profession.
29. I was better able to understand the ideas and concepts taught in this course.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

**In general:**

30. The instructor encouraged us to use "MyGateway" in this course.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

31. Using MyGateway contributed to my learning.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

32. I prefer communicating with my instructor via [personal] email, outside MyGateway.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

33. I am very satisfied with this course because it used MyGateway.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

34. I prefer using general web resources, outside MyGateway, when studying for a course.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

35. It takes more effort to complete a course that uses online resources like MyGateway.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

36. I would like to have MyGateway" used in other courses.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
37. I am more likely to take another course at UMSL because it uses *MyGateway*.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

38. I am more likely to complete my degree at UMSL because of the advantages of using *MyGateway* in my courses.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

We are interested in your specific experiences and suggestions for improving use of "*MyGateway*" at UMSL. Please answer Questions 39 and 40 with as much detail as you wish to provide. Use additional paper if needed.

39. The benefits of using "*MyGateway*" are:

40. In your opinion, how can the use of "*MyGateway*" be improved for this course? Did you have any problems using it?

**Your Academic Goals**

41. What grade do you expect to receive in this course?
   - A. A
   - B. B
   - C. C
42. Do you plan to earn a degree from UMSL?
   A. Yes
   B. No

43. How many credits have you completed at UMSL?
   A. 0-15
   B. 16-30
   C. 31-45
   D. 46-60
   E. More than 60

44. What is the highest degree you expect to earn from UMSL?
   A. Certificate      D. Ph.D./Ed.D.
   B. B.A./B.S.        E. Other
   C. MA/MS            F. I don't expect to earn a degree

45. If you have previously earned degree(s), what is the highest degree you have earned?
   A. Certificate      D. B.A./B.S.
   B. A.A.             E. M.A./M.S.
   C. A.A.S.           F. Ph.D./Ed.D.

46. College or University Awarding Degree in Q. 45

Thank you for your responses!
Robert Keel and Dr. Cheryl Bielema
MYGATEWAY Support
Information Technology Services