Variations Satisfaction Survey Results

Original: October 28, 2002
Revised: February 24, 2003

Principal Investigator: Maggie B. Swan (mbswan@indiana.edu)

Executive Summary

During the week of September 23 – 29, 2002, a survey was administered to Variations users to elicit their opinions about the software in preparation for the release of Variations2 version 1.0. The satisfaction data gathered are intended to be used as a baseline for future satisfaction rating comparisons with v. 1.0 and subsequent Variations2 system releases.

Thirty respondents filled out a survey in the Cook Music Library after normal use of Variations a computer in one of the library computer labs. Respondents were asked to report information in 4 main sections: Demographics, Session Experience, Satisfaction Ratings, and Additional Comments.

Two-thirds (n=19) of the survey respondents claimed to use Variations 1-5 times a week, and another 7 reported use of Variations more than five times a week. Approximately half (n=14) reported that they began using Variations more than two years ago. The main activities respondents used Variations for were course reserve list listening for classes; recital/performance/orchestra/lesson preparation; homework/paper research; repertoire research; and personal listening.

Session Experience answers revealed that respondents access Variations mostly through course reserve lists and the online library catalog (IUCAT) for purposes of studying for an exam (music theory or history), completing listening homework for class, personal listening, and/or prepping for lessons, conducting, and doctoral exams. Tools students most often used included web browsers (IE), Variations player, webpages (course reserves & IUCAT), headphones checked out from the circulation desk, and paper scores.

Respondents were asked to rate their satisfaction with Variations in terms of overall satisfaction, navigation, organization of information, character readability, task performance, location recognition, and window management. Overall, respondents rated their experience with Variations quite highly. All questions, with one exception, rendered a mean score of above 5.0 (from 1-7). The measure that garnered the lowest mean score was system speed, a continuum from slow to fast (mean rating = 4.77). The measure that garnered the highest mean score was character readability, a continuum from hard to easy to read (mean rating = 6.13).

The Additional Information section allowed respondents to freely comment on the system. Comments were often positive (e.g., "It's a very useful access to the recordings, instead of getting CDs, tapes, etc."), but also suggested areas for improvement with regard to system speed, lack of musical variety in Variations, inaccessibility of Variations outside the music library, track time representation, and searching capabilities, among others.

Table of Contents

I. Purpose & Goals

Variations is an existing digital library system which provides access to over 8000 titles of near CD-quality digital audio to users at computer workstations in the Cook Music Library at Indiana University, Bloomington.

As an extension of Variations, the **Variations2** project aims to establish a digital music library testbed system for the purpose of examining dissemination of digitized music in a variety of formats.

As part of the on-going investigation into the usability and usage patterns of the Variations systems, a two-page survey (see Appendix A) was administered to Variations users to elicit their opinions about the software in preparation for the release of Variations2 version 1.0, which was slated for release in fall of 2002.

The survey had two objectives:
1. Measure a baseline for comparison using data gleaned from tests of the original Variations system (conducted May, 2001) to compare against ratings of satisfaction for Variations2: IU Digital Music Library;
2. Compare QUIS[1] satisfaction measures in a usability lab testing situation vs. real contextual usage.

II. Procedure

During the week of September 23 – 29, 2002, thirty (30) Variations users were recruited by the PI at the 1st-floor Cook Music Library computer lab. A sign posted on a rolling book cart, which was set up as the survey "table", indicated that a survey opportunity was available. Three recruitment sessions were completed over the course of one week; each session lasted approximately 3 hours. The PI recruited respondents using two methods:
- a) approached students as they arrived to use the lab and asked them whether they intended to use Variations. If users indicated that they intended to use Variations, the researcher offered them a survey.
- b) approached students once they appeared to have finished a lab session, and asked whether they used Variations. If users indicated that they used Variations, the researcher offered them a survey.

The researcher then collected the completed surveys from students once they were finished with their Variations use session. Respondents were given a coupon for a free scoop of ice cream. Study information sheets that outlined the purpose of the survey were also handed to respondents in addition to the survey. After 30 surveys were collected, the data was compiled.

---

[1] From http://www.lap.umd.edu/QUIS/index.html: "The Questionnaire for User Interaction Satisfaction (QUIS) is a tool developed by a multi-disciplinary team of researchers in the Human-Computer Interaction Lab (HCIL) at the University of Maryland at College Park. The QUIS was designed to assess users' subjective satisfaction with specific aspects of the human-computer interface." (Retrieved 10/22/02)

III. Results

Consolidated survey results are shown below. They are organized into four sections: Demographics, Session Experience, Satisfaction Ratings and Additional Comments. As needed, individual survey responses are identified by respondent number, e.g. #4.

<u>Demographics</u>
Respondents had varying majors, native languages, ages, general computer experience, prior Variations experience and reasons for using Variations.

16 females and 14 males filled out surveys. Their ages ranged from 18 – 35 years, with a mean age of 22.9 years. All respondents were music majors and there were a variety of majors, including, e.g., ballet, bassoon, music education, jazz studies, organ, theory, violin and voice. Only four respondents listed their native language as other than English: two Korean, one Japanese, and one Spanish/English.

Computer usage and platform expertise was generally reported at high levels as illustrated in tables 1a and 1b. 19 of the 30 respondents claimed to use computers at least 11 hours a week, with a third using computers 20 hours or more per week. Platform experience ratings reflected moderate to high experience with PCs and slightly lower experience with Macs. On a scale from 1-5, with 1 being Novice and 5 being Expert, the mean result for PC was 3.7 and for Mac was 2.33.

The respondents also reported high levels of Variations use. 19 claimed to use Variations 1-5 times a week, and another 7 reported use of Variations more than five times a week. Approximately half (n=14) reported that they began using Variations more than two years ago.

Respondents' typical Variations activities were also gauged. Answers were inclusive of the following activities:

- course reserve list listening for classes
- recital/performance/orchestra/lesson preparation
- homework/paper research
- repertoire research
- personal listening

See Section I of Appendix C for a complete list of reported Variations activities ordered by respondent #.

Table 1a – Computer Usage Per Week (in hours)

Hrs/week	# Respondents (n=30)									
	1	2	3	4	5	6	7	8	9	10
0-5			●							
6-10						●				
11-20									●	
20 or more										●

Table 1b – Computer Experience (Novice to Expert)

Experience Category		# Respondents	
		PC	Mac
Novice	1	0	6
	2	0	11
	3	11	11
	4	17	1
Expert	5	2	0
Average		**3.7**	**2.33**

Session Experience
In this section, respondents were asked to describe in detail the Variations use session they had just completed according to three criteria:

   a) the way they accessed Variations (e.g. course syllabus, IUCAT, library reserve list)
   b) the purpose of their Variations session (e.g. personal listening, class project, etc.)
   c) the tools they used to access Variations and associated materials (e.g. web pages, browsers, score viewer, media player, etc.)

a) The majority of users (23 out of 30) accessed Variations through IUCAT, and/or course reserve lists accessed through the music library homepage. Three indicated that they linked through the online course syllabus. One used a paper assignment sheet that contained the link for Variations and individual item "codes" to be added to the base URL.

b) Respondents' purposes for using Variations were quite similar and many claimed dual listening purposes during one session. Most were studying for a music theory or history exam and/or completing listening homework for class (17 out of 30); Five respondents said they were doing personal listening. Several were preparing for various other activities including:
   - lessons [#10, #24]
   - conducting [#19]
   - doctoral exams [#22]

c) Tools used by respondents included web browsers (IE), the Variations player, web pages (course reserves & IUCAT), headphones checked out from the circulation desk, and paper scores.

Satisfaction Ratings
Eleven modified QUIS-style paired-adjective questions were used to gather satisfaction ratings. For each question, the Likert scale continuum ranged from 1-7, with 1 representing a negative adjective and 7 representing a positive adjective. Question 1 investigated Variations overall satisfaction with five sub-rating adjective pairs. The remaining six questions asked about various aspects of Variations including navigational ease, organization of information, readability, task performance, location recognition,

and window management. See Section III of Appendix A for a complete list of the Satisfaction Survey questions and continua adjective pairs.

Overall, respondents rated their experience with Variations quite highly. All questions, with one exception, yielded a mean score above 5.0. The measure that garnered the lowest mean score was that which assessed satisfaction with the system speed, a continuum from slow to fast (mean rating = 4.77). Compiled mean and median satisfaction ratings are shown in Table 2. Table 3 illustrates the satisfaction components in order from lowest to highest ratings.

Table 2 – Mean & Median Satisfaction Ratings (n=30)

Question	Average Rating	Median Score
1. Overall, I found Variations:		
Terrible 1 2 3 4 5 6 7 Wonderful	5.57	5.5
Difficult 1 2 3 4 5 6 7 Easy	5.73	6
Frustrating 1 2 3 4 5 6 7 Satisfying	5.30	5.5
Dull 1 2 3 4 5 6 7 Stimulating	5.17 (n=29)	5
Slow 1 2 3 4 5 6 7 Fast	4.77	5
2. Navigating Variations and its components was: Difficult 1 2 3 4 5 6 7 Easy	5.90	6
3. Tasks could be performed in a straight-forward manner: Never 1 2 3 4 5 6 7 Always	5.90	6
4. My location within Variations at any given moment was: Never Apparent 1 2 3 4 5 6 7 Always Apparent	5.86 (n=29)	6
5. Characters (letters, type, fonts) in Variations are: Hard to read 1 2 3 4 5 6 7 Easy to read	6.13	6
6. Organization of information in Variations is: Confusing 1 2 3 4 5 6 7 Clear	5.53	6
7. The number of screens and/or windows open at any one time in Variations is: Difficult to deal with 1 2 3 4 5 6 7 Easy to manage	5.33	6

Table 3 – Ordered Components and Satisfaction Ratings (lowest to highest)

Question Category	Continuum	Average Rating
Overall	Slow → Fast	4.77
Overall	Dull → Stimulating	5.17
Overall	Frustrating → Satisfying	5.30
Screen/window management	Difficult to deal with → Easy to manage	5.33
Organization of information	Confusing → Clear	5.53
Overall	Terrible → Wonderful	5.57
Overall	Difficult → Easy	5.73
Location	Never apparent → Always apparent	5.86
Navigation	Difficult → Easy	5.90
Straightforward task performance	Never → Always	5.90
Characters	Hard to read → Easy to read	6.13

Additional Comments

The additional comments section offered an opportunity for unstructured comments about Variations. Respondents used this section to comment on areas that were not addressed in the satisfaction ratings or to reiterate satisfaction areas that had already been addressed and were important to them. Both positive comments and suggestions for improvement were offered. See Appendix C for a fully transcribed list of the Additional Comments ordered by respondent #.

Positive comments were made about the existence of Variations and included praise such as:

- "overall a very useful tool" [#5]
- "I think that Variations is simply tremendous to use. It is a veritable heaven for all musicians here" [#11]
- "It's a very useful access to the recordings, instead of getting CDs, tapes, etc." [#30]

Negative comments were frequently made in reference to the slowness of the system. System lag is commonly encountered when requests are made for items which have not recently been demanded, and thus have to be retrieved from the tape storage system. The other source of slowness is that navigation within a recording leaves a 2-4 second gap before the audio begins playing:

- "It is slow sometimes when moving from track to track." [#2]
- "I enjoy the ease of Variations but often get frustrated of a lot of the materials I want to listen to must be retrieved. That can get time consuming." [#20]
- "The only thing that's bad is when you need a recording that has to be retrieved from tape and it takes a long time." [#21]
- "Wish it didn't take so long to access some recordings!" [#24]

Other negative comments were made concerning:
- difficulty retrieving two items at the same time [#5, #10, #13, #21]
- sound skipping or cutting off [#25, #26]
- difficulty/inefficiency jumping to certain parts of a track [#15]

- inaccessibility of Variations outside of the music library [#12]

Suggestions for improvement included the following:
- Make liner notes available in Variations. [#18]
- Add more items to Variations. [#30]
- "There needs to be more forms of music on Variations." [#27]
- Put an icon for Variations on the computer desktops. [#8]
- Have all album information available in Variations so IUCAT window does not have to be open. [#7]
- Put track times in Variations. [#18]
- Add cue and review functions to player. [#7]
- Have a "Variations search that is easy to use across ALL teachers listening lists." [#8]
- Cross-reference pieces under "performance" with composers. [#23]

IV. Comparison of QUIS Results

One of the goals for this survey was to be able to compare the satisfaction rating results to satisfaction data gathered in an earlier Variations study to begin to investigate whether there are differences in longitudinal satisfaction ratings taken in a lab context vs. real use situations. The earlier QUIS study questions probed the same usage issues (some questions were identical) and presented continua similar to the current survey (see Appendix D for original QUIS study questions). One major difference was that the earlier QUIS study continua ranged from 1-5 while this survey contained questions which ranged from 1-7. To provide a valid comparison of data between the two studies, the data were standardized to a 100 point scale. The results of the standardized comparisons are shown in Table 4. In every measure except two (hard to read/easy & slow/fast), the "After Use" satisfaction ratings were higher than the "After Test" ratings.

Table 4 – Satisfaction Ratings Comparisons

Satisfaction: After Test vs. After Use
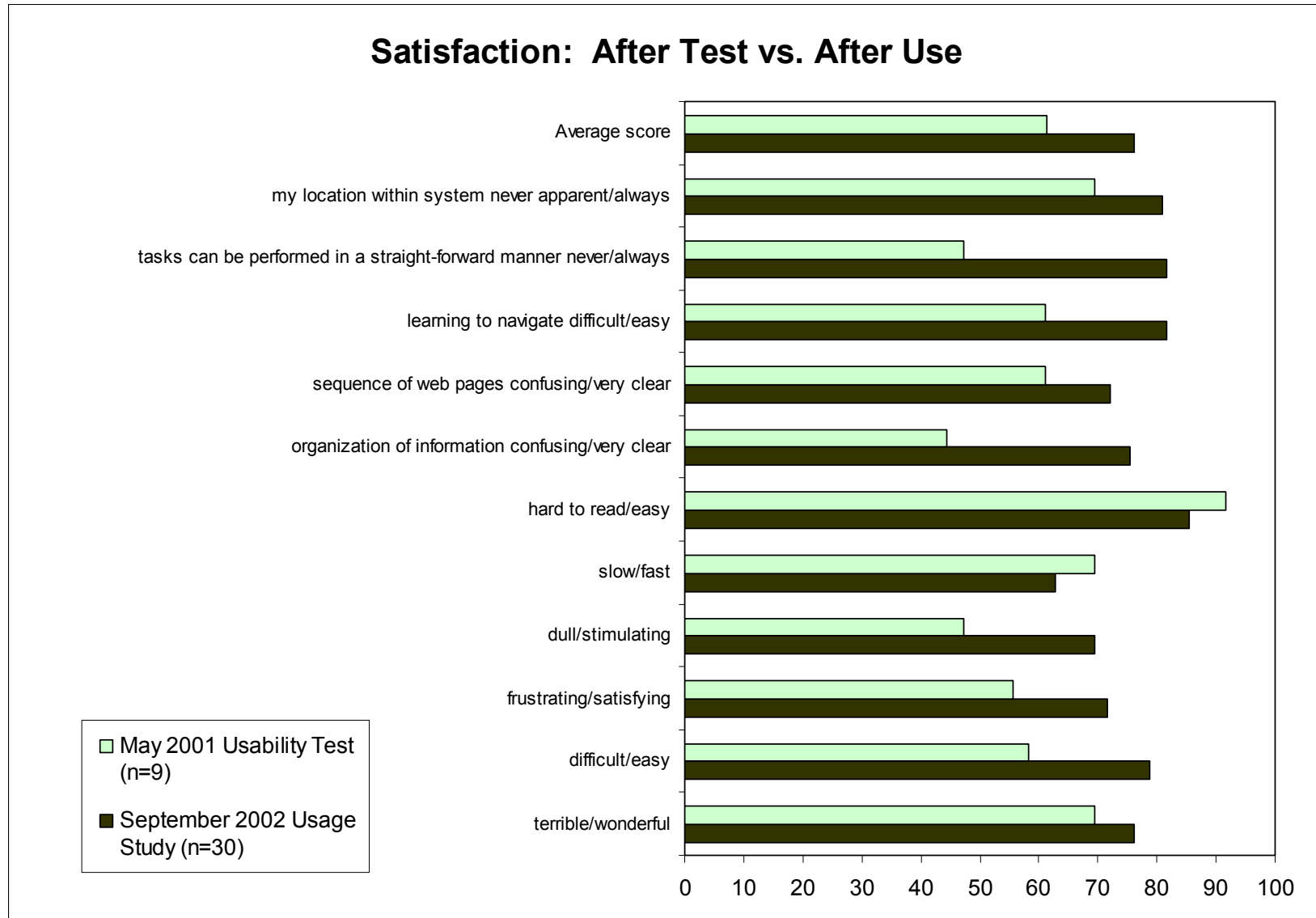
V. Discussion

'After Use' satisfaction ratings were higher for Variations than the 'After Test' ratings. This suggests that there is a chance for discrepancy between results of user satisfaction gleaned from lab testing scenarios and actual use satisfaction. Further studies will be undertaken to see if this result holds true for lab test and actual use scenarios of future Variations versions.

These survey results may give Variations2 developers a better understanding of the difficulties current Variations users encounter. Respondent suggestions can be used to make improvements to Variations2. These data do not uncover all of the possible use issues with Variations2, but they offer a start. We will know more about the satisfaction users have with the current Variations system once Variations2 is deployed and ratings can be compared between the two systems.

It should be noted that it was quite time-consuming to collect the surveys. Many prospective respondents assumed that this survey was the same Variations survey they had filled out a year ago or more. Such surveys could be conducted more efficiently if professors required surveys to be filled out for class or if library employees handed out and collected the surveys. Either way, interesting comparisons of usage between the two systems as well as insights into differences in satisfaction data collection in a real context versus a lab situation will be afforded by continuation of this line of research.

VI. Appendices

Appendix A – Survey Instrument

Please fill out this questionnaire AFTER completing your work with Variations today.

I. Demographic Questionnaire

1. Are you Male / Female? (Circle one)
2. What is your major? (e.g. composition, voice, piano):

    _____
3. What is your age? _____
4. What is your native language? _____
5. How many hours per week do you spend using a computer?
    [____ 0-5][____ 6-10]   [____ 11-20] [____ 20 or more]
6. Rate your computer experience on the following systems by circling 1-5 below:

    a. PC: Novice 1 2 3 4 5 Expert
    b. Macintosh: Novice 1 2 3 4 5 Expert

7.   Approximately how often do you use Variations?
    ____ once a month or less
    ____ once every two weeks
    ____ once a week
    ____ 1-5 times a week
    ____ more than 5 times a week

8. When did you begin using Variations? Mark the most accurate choice.
    ____ within the last month
    ____ within the last year
    ____ within the last two years
    ____ more than two years ago

9. What activities do you mainly use Variations for? (e.g. listening to a class reserve list, preparing for recital, personal listening, etc.)

    _____

II. Session Experience

Describe in detail today's Variations session experience. This information may include *but is not limited to:*

   a) the way you accessed Variations (e.g. course syllabus, IUCAT, library reserve list)
   b) the purpose of your Variations session (e.g. personal listening, class project, etc.)

c) the tools you used to access Variations and associated materials (e.g. web pages, browsers, score viewer, media player, etc.)

_____
_____
_____
_____

Please continue your description on the back of the page.

(Page 1 of 2)

III. Satisfaction Survey

For each question below, circle a number from 1-7. The number should best represent your feelings about the Variations experience that you described in Section II. Feel free to write additional comments in the space provided below.

1.   Overall, I found Variations:

Terrible	1 2 3 4 5 6 7	Wonderful
Difficult	1 2 3 4 5 6 7	Easy
Frustrating	1 2 3 4 5 6 7	Satisfying
Dull	1 2 3 4 5 6 7	Stimulating
Slow	1 2 3 4 5 6 7	Fast

2.   Navigating Variations and its components was:

Difficult   1 2 3 4 5 6 7   Easy

3.   Tasks could be performed in a straight-forward manner:

Never   1 2 3 4 5 6 7   Always

4.   My location with Variations at any given moment was:

Never apparent   1 2 3 4 5 6 7   Always apparent

5.   Characters (letters, type, fonts) in Variations are:

Hard to read   1 2 3 4 5 6 7   Easy to read

6.   Organization of information in Variations is:

Confusing   1 2 3 4 5 6 7   Clear

7.   The number of screens and/or windows open at any one time in Variations is:

Difficult to deal with   1   2   3   4   5   6   7   Easy to manage

Additional Comments (use back of page if you need more space):

_____
_____
_____
_____
_____

Thank you for your time! Please return this to the researcher.

(Page 2 of 2)

Appendix B - Transcriptions

I. Demographic Questionnaire

Question 9: What activities do you mainly use Variations for? (e.g. listening to a class reserve list, preparing for recital, personal listening, etc.)

Survey #	Activities
1	Class listening, rep. [repertoire] research, recital prep
2	Listening to class reserves + preparing for orchestra
3	Class stuff (music history) + Jazz
4	Listening for class, learning about excerpts
5	All the above reasons [listening to a class reserve list, preparing for recital, personal listening]
6	For class, for orchestra, for lessons & personal
7	Personal listening
8	Listening to a class reserve list
9	Personal interest
10	Listening to my rep. [repertoire] to hear how others perform it
11	Class listening, pleasure, program preparation, paper preparation
12	Listening to a class reserve list, personal listening
13	Listening to pieces for class, and preparing for performances
14	Looking for CDs (personal listening)
15	Class reserve list, personal listening, learning music
16	For class reserve
17	Class reserve, personal interest, finding vocal repertoire
18	Personal listening, class preparation
19	Class reserve, personal listening
20	Listening to music for class/personal enjoyment
21	Class reserve list
22	All of the above [listening to a class reserve list, preparing for recital, personal listening]
23	Listening to course reserves for classes
24	Personal listening, preparing for lessons & performances
25	Class reserve
26	Course reserve, also via IUCAT
27	Class reserve list
28	Listening to a class reserve list
29	Personal/reserve
30	Listening to a class reserve list, preparing for lessons. i.e. learning new pieces

II. Session Experience

Describe in detail today's Variations experience. This information may include *but is not limited to*:

  a) the way you accessed Variations (e.g. course syllabus, IUCAT, library reserve list)
  b) the purpose of your Variations session (e.g. personal listening, class project, etc.)
  c) the tools you used to access Variations and associated materials (e.g. web pages, browsers, score viewer, media player, etc.)

Survey #	Session Experience
1	Access through the library reserve list, listening for class tomorrow
2	Used it for 401 review. Went to variations through the course homepage.
3	I like the current system, but I would like to see search of variations make easier.
4	Listening for class, used IUCAT
5	a) IUCAT b) personal listening c) Internet Explorer + Variations player
6	a) IUCAT b) class homework c) Webpages; internet explorer; media player
7	Accessed through IUCAT. Search for Choping Sonata and http. Purpose: personal listening.
8	I used variations to listen to pieces that are required for 2 of my courses. I went in through the music library home page.
9	IUCAT, library reserve list
10	I accessed Variations through IUCAT. I need to prepare a piece for my lesson and wanted to hear a recording first. I used a media player to listen to the piece.
11	I access the list from the library reserve list. Today I listened to CD 1 of The Norton Anthology of Western Music.
12	a) IUCAT → Find course reserve → click on the class listing for particular teacher → then listen to music. b) Personal, class c) School web page. Go to music school web-site → click on music library.
13	IUCAT
14	I accessed the URL to look for some Indian music (personal listening) and found what I needed quickly & easily.
15	*I accessed variations from my M401 course syllabus/website *My purpose was to study for an upcoming exam *I used my course syllabus website via Internet Explorer. I listened to variations with headphones that I checked out from the circulation desk.
16	I work at the music library so I know how to access variations easily…through Mus Lib web page under course reserves. I used it for a class that I took in the spring (Z121).
17	Today's experience I found satisfying, apart from the slow retrieval time. The controls are easy to use on the player, and the selection continually surprises me. There are far fewer "pops" and "squeaks" than I remember when I first started using the system more than three years ago. I just wish retrieval happened faster.
18	a) Used URL in course syllabus AND used link in IUCAT to online

	listening b) For class preparation & listening study & enjoyment (I'm a composer, always listening to classical music) c) Web pages only
19	Needed to listen to a piece I need to learn for conducting. Found via IUCAT had to retrieve from tape. Retrieved fairly quickly.
20	IUCAT-listening to music for a class – Went to IUCAT through library web site.
21	Course reserve page. With Internet Explorer. I am studying for my music theory test.
22	IUCAT – studying for doctoral exams. The new "URL available" with WWW in a red box next to the search results is great [for] accessing recordings on variations quickly. Retrieval time isn't too bad – wish it would be quicker. It would be helpful to close the 'Variations Retrieval Window' while waiting the 5 minutes for playback to be available so that you can continue working in other things. Is there a score viewer? How do you access it?
23	Listened to several different works in prep for a test this week.
24	Accessed Variations through IUCAT – wanted to listen to some recordings of a few arias I'm learning for my lesson. Went to IUCAT & typed in name of aria and http, clicked on the http/Variations website, & clicked into the recording.
25	I accessed Variations through the library reserve list, to listen for a class. I used the school of music library web page and followed links to my class section, pressed recordings on reserve and found the selection.
26	Music library page → course reserves, a professor has placed links to the recordings on the page. Course listening is usually my purpose. I never use score viewer, but always use IUCAT or course reserves.
27	a) we had a list that took us to the library reserve recordings b) to study for atonal theory class c) just recordings
28	a) IUCAT, library reserve list b) Class project c) Web pages
29	Course reserve via syllabus/IUCAT. Study for test.
30	a) class reserve list, IUCAT b) quizzes, class project, learning new pieces c)

III. Additional Comments

Survey #	Additional Comments
1	
2	It is slow sometimes when moving from track to track
3	
4	I love Variations!
5	- could load faster - having only one item retrieved at a time is restrictive - overall a very useful tool
6	
7	It would be nice if all of the album information was listed on the Variations access page; one would no longer need to keep IUCAT page open. Cue and review functions would also be nice (if possible).
8	Variations would be much better if you could scroll through the songs faster on any given screen. The songs often stall causing delays and such. There should also be a Variations search that is easy to use across ALL teachers listening lists. Is there any way to get a Variations icon on the desktop? [reason for giving a "2" on organization] This is not Variations fault, for they should get proffs to label songs clearer.
9	
10	Couldn't retrieve 2 things simultaneously, and it closed them both without retrieving either.
11	I think that Variations is simply tremendous to use. It is a veritable heaven for all musicians here.
12	I like Variations. I just wish that can be access anywhere. Sometimes, it is inconvenient to come to music school. Thus, please make that available anywhere, anytime.
13	I was trying to access the 2nd CD of a two-disk set and it only gave me Disc One.
14	
15	I would prefer if there were a more efficient way of rewinding/fastforwarding an excerpt to a specific point. That is currently not possible.
16	
17	
18	-This is reaching, but liner notes or a summary of performance or notes would be great – obviously this would be a lot of work / and possibly illegal? - Track times on Variations page listing tracks on CD would be really nice.
19	
20	I enjoy the ease of Variations but often get frustrated of a lot of the materials I want to listen to must be retrieved. That can get time consuming.
21	The only thing that's bad is when you need a recording that has to be retrieved from tape and it takes a long time. Also you can't retrieve more than one item at a time, and if you try to do a second one, it cancels the first one. This SUCKS.
22	
23	Some of the pieces listed under performance ought to be cross-referenced w/ the composers.
24	Wish it didn't take so long to access some recordings!
25	The only problem I have once in a while with variations is that the sound

	skips a bit, but this might just be from the headphone amp.
26	The variations recording of Lucio Silla (opera by Mozart) has some problems on its third "side". The player cuts off in the middle of the music. Other than that, I have found Variations very convenient.
27	There needs to be more forms of music on Variations.
28	
29	
30	It's a very useful access to the recordings, instead of getting CDs, tapes, etc. Hope the more recordings will be available in Variations!

Appendix D – QUIS Satisfaction Survey (May, 2001)

Please circle one number in the continuum for each question that best represents your experience. Feel free to write down any comments you may have.

Overall reaction to the web sites and multimedia tools:

terrible   wonderful
       1   2   3   4   5

difficult   easy
       1   2   3   4   5

frustrating   satisfying
       1   2   3   4   5

dull   stimulating
       1   2   3   4   5

slow   fast
       1   2   3   4   5

Screen

Characters on web sites and multimedia tools are
hard to read   easy to read
       1   2   3   4   5

Organization of information on the web sites & multimedia tools
confusing   very clear
       1   2   3   4   5

Sequence of web pages
confusing   very clear
       1   2   3   4   5

Navigation

Learning to navigate the web sites and multimedia tools
difficult   easy
       1   2   3   4   5

Tasks can be performed in a straight-forward manner
never   always
       1   2   3   4   5

My location within the web sites & tools at any given moment
Never apparent   always apparent
       1   2   3   4   5