

September 14, 2004

Report of the Sufficiency Review Committee Summer 2004

PURPOSE

The charge to this committee, consisting of Professors Higgins, Menides, O'Donnell, Samson (Chair), and Rivera, was to administer the faculty and student surveys designed by last summer's Sufficiency Review Committee. The present committee carried out a survey of the Sufficiency experiences of students and their advisors for Sufficiencies completed between B term 2003 and D term 2004. It also reviewed questionnaires about the Sufficiency experience sent to members of the WPI Class of 1998. These new procedures were adopted for the Sufficiency review to address general issues of outcomes assessment at WPI, and to address specific matters of departmental review procedures which surfaced after the 1996 and 1999 reviews.

SUMMARY

Students and faculty surveys and comments both testified very strongly to the importance of learning to research and write during the Sufficiency experience. Students were proud of acquiring new skills of argumentation and explication, but also anxious about (and sometimes frustrated with) having to write in ways they had not encountered before. However, students also found the sense of personal ownership of their Sufficiency projects rewarding. Advisors generally were most impressed by the fit between students' coursework and the final project or 1/6 unit, and by students' ability to profit from the advisor's guidance.

The committee found that (currently enrolled) students and their advisors are by and large satisfied with the Sufficiency experience and with the level of attainment achieved in Sufficiency project or final course work. Students found their advising and the courses they took toward the Sufficiency requirement generally satisfactory. However, mean scores for responses (especially advisor responses) in some areas were too close to a noncommittal median to leave this committee completely satisfied about the process. Student response was most lukewarm about training in oral presentation. In addition, the low-ish responses to some questions on Humanities and Arts coursework as background to the Sufficiency, and comments on this subject in the open-ended responses, suggest that this is an area that at least some disciplines should address soon.

Many of the same patterns of response were apparent in alumni surveys. Alumni surveys tended, more than the surveys of currently enrolled students, to stress a commitment to further interest in their area of study.

The committee noted differences in response between surveys in different disciplines, especially in the concerns raised in the open-ended questions on the survey. Some of these are listed in the body of the report; others can be found in the tables in Appendices A and B. It should also be noted that some disciplines were more fully represented in the surveys than others. In the case of some

disciplines, we fear that the submitted questionnaires reflected so small a part of the discipline's Sufficiency activity as to call the usefulness of the review into question.

We also encountered difficulties with the fact that across all disciplines, we received many student questionnaires without corresponding faculty forms, and vice versa. Overall the Sufficiencies about which we read in the collected questionnaires represented only 64 per cent of the Department's Sufficiency activity. Complete questionnaire packets--in which the committee could compare responses of a Sufficiency student with those of the advisor--were submitted for only 42 per cent of the department's activities. The committee believes that if the experiment of conducting reviews in this fashion is to succeed, the next review's questionnaire return rate will have to be much better.

BACKGROUND

Previous Sufficiency reviews were conducted by having committee members read and evaluate a sample of the preceding year's Sufficiency Projects. This system was the subject of considerable discussion after the 1996 and 1999 reviews. Individuals in both the committees and on the department faculty expressed unhappiness that projects were being read and judged by faculty unfamiliar with the disciplines of the projects reviewed. It was also widely noted that the review process was not suited to measure Sufficiency experience in Foreign Languages, where a final sixth course instead of an independent project usually capped the Sufficiency sequence, and the performance disciplines, Music and Drama/Theatre, whose capstone performances the reviewers had generally not seen. Finally, WPI's growing sensitivity to ABET's criteria for measuring educational outcomes was felt in the Humanities and Arts Department. The department's Outcomes Assessment Committee, chaired by Professor Hansen, meeting in May-June 2001, noted that the 1999 committee had introduced a review form on which reviewers rated features of the project on a 1 to 5 scale. This had added a necessary level of system to the review. However, that form did not attempt to track some important aspects of the Sufficiency experience. These were the thematic coherence of the Sufficiency experience as a whole--including the courses as well as the final project--and the extent to which students' knowledge of themselves was affected by their Sufficiency experience.

The Outcomes Assessment Committee recommended introducing "Outcomes Surveys," to be handed out at the conclusion of the Sufficiency sequence. These would be completed by both the student and the advisor and would ask about specific educational outcomes. The report suggested that such surveys "would also be excellent indicators of the formative outcomes that students have attained in making progress towards WPI's expected outcomes at graduation. . . . [T]hey could also serve the important pedagogical purpose of focusing the attention of students and faculty on the outcome that we hope students will achieve." ("Report of the Outcomes Assessment Committee," 6-7.)

In the summer of 2003 a committee chaired by Professor Hanlan acted on the Outcomes Committee's recommendation. It decided to replace reviews through the reading of a sample of projects, with the distribution of questionnaires that measured satisfaction and outcomes according to students and advisors.

PREPARATION OF THE REVIEW

The present committee met in November and December 2003 to revise the survey forms designed by the Summer 2003 committee. The revisions provided more neutral language for some survey questions so that they would be compatible with the department's wide range of pedagogies and project formats. The committee maintained the questionnaire categories devised by the previous committee: Preparation, Creation and Discovery, Conveyance, and Outcomes. In both student and advisor surveys, each category contained a number of positive statements about different aspects of work and results. Respondents indicated their agreement or disagreement with the statements on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree), or Not Applicable (0).

The questions in Preparation measured the relation of the Sufficiency course sequence to the final project, performance, course, or other final 1/3 unit of the Sufficiency sequence. Creation/Discovery measured the experience of preparing the final project or 1/3 unit. Conveyance's questions dealt with the work quality of the final product, and Outcomes questioned the student's growth in appreciation of, and continuation of interest in, her/his Humanities and Arts experience. The form also contained spaces for respondents to state the strongest and weakest aspects of the Sufficiency experience, and to state how much of the Sufficiency sequence had been met through transfer credit. (Forms are reproduced as Appendix C.)

Department administrator Margaret Brodmerkle assembled the completed forms into packets containing copies of the project CDR form, a copy of the title page (where applicable), the student survey, and the faculty survey. Names of students and advisors were removed from documents. A cover sheet provided by the student was intended as a means of tracking projects if necessary.

Because of the time required for the 2003 committee to prepare questionnaires and receive departmental feedback, and for the present committee to revise and distribute the forms, the survey forms were not ready until B term 2003. Therefore only Sufficiencies completed in B, C and D terms of the 2003-4 academic year were analyzed in our review.

As mandated by the previous committee, a questionnaire, slightly different in format, was also sent to graduates of the WPI class of 1998. This was to compare this class's level of satisfaction with the Sufficiency with that of currently enrolled students. It was also intended to find out whether continued student interest in her/his Sufficiency area, and her/his sense of the continued life value of the humanities--often stated as the desired outcome for WPI students taking Humanities and Arts courses and projects--had in fact been the case for alumni.

DATA COLLECTION

The committee received 189 complete student/advisor questionnaire pairings from academic year 2003-04. We decided to include packets for which one or another of the supporting documents (e.g. CDR) was missing. We had 76 packets from History, 59 from the English-language disciplines (English and American literature, Drama/Theatre, Rhetoric), 40 from Philosophy/Religion, 11 from Foreign Languages, 2 from Music, 10 from Art History, and 11 from Sufficiencies designated HU.

We also received 72 surveys from faculty whose students did not submit forms, and 51 from students whose advisors did not return forms. In part because of software capabilities and programming decisions, only complete faculty-student pairings were included in our quantitative analysis, and the unmatched questionnaires could not be included in the breakdown of enumerated responses. However, we read the open-ended comments on these unmatched forms and included them in the tables we devised for analyzing these comments. (See Appendix B.)

Overall, we have one or both questionnaires from 305 Sufficiencies completed between B 2003 and D 2004. The department has records of an additional 169 Sufficiencies completed in this same period for which no questionnaires from either students or advisors could be found. Eleven of these were Sufficiencies completed in their entirety through transfer credit from other institutions. This leaves 158 Sufficiencies (55 in Foreign Language, 24 in Music, and the rest spread among the other disciplines) omitted entirely from our review.

The tables of enumerated responses (based on complete advisor/student packets) in Appendix A represent 42 per cent of all Sufficiency activity for the period surveyed. This is hardly higher than the one-third of Sufficiencies sampled when reviewers in previous years read the actual projects. We did better with the evaluation of open-ended responses in Appendix B, which represents 64 per cent of all Sufficiency activity. We received more questionnaires from faculty than students, however, so that the sample pool for these questions is rather lopsided. Overall, we worked with a larger sample than the sample pool from previous reviews. Yet we were considerably short of the goal, established by the summer 2003 committee, of reviewing Sufficiency output in its entirety. We believe that reviewed packets should represent at least 75 to 80 per cent of total Sufficiency activity.

In addition to Sufficiencies from the past academic year, the committee received 81 surveys returned by members of the class of 1998. This was out of 587 sent out, giving us a 13.8 per cent response rate. This is a fairly typical rate of alumni response, although expert faculty we consulted disagreed on whether our sample should be considered statistically reliable or not. Some experts stated that they considered twenty per cent to be the minimum viable sample. Class of 1998 responses will be discussed below separately from 2003-2004 surveys.

DATA PROCESSING

The summer 2003 committee had designed forms on which topics and statements on student forms paralleled the ones on faculty forms. The committee decided that congruence between advisor and student responses was especially important to measure. Congruence in the area of 1 or lower might indicate that students and advisors had a shared understanding of the student's Sufficiency work; anything much higher suggested a dangerous lack of concordance between advisor and student. We kept this measure as an important one and chose software that could track it. However, we discarded the previous committee's template reviewer form, which measured congruence exclusively, in favor of a system that could track satisfaction and dissatisfaction according to other measures as well.

Professor O'Donnell made a quantitative analysis (using Access) of student and faculty response scores, that is, the 0-5 responses to statements about Preparation, Creation/Discovery, Conveyance,

and Outcomes. In addition to measuring congruence, his tables, reproduced in Appendix A, allowed us to record what percentage of responses fell within each measure of the scale (Not Applicable to Strongly Agree). These tables also give the mean response for each statement, averaging out responses on the scale and offering an approximate norm response for each category. The program also calculated the standard deviation for responses to each topic statement. These calculations were done for the survey pool as a whole (or rather the pool of complete student/advisor pairings) and by individual discipline.

One thing we could not do with this program, since it was set up to look for congruence, was process unpaired surveys—student without the matching advisor and vice versa. We set those surveys aside for several weeks until Professors Higgins and Menides found a way to make use of them. Reading the open-ended survey comments on strongest and weakest aspects of the Sufficiency, all committee members quickly found the same topics of satisfaction and concern recurring frequently. Professors Higgins and Menides collaborated on a table of categories on which the reviewers could check off the number of respondents commenting on that category. Professor Higgins computed tables based on reviewers' totals for these categories. In this computation, we were able to include unmatched advisor and student surveys as well as complete pairings. The resulting breakdown by percentages, however, did not include those questionnaires on which respondents wrote nothing for open-ended questions. (There were 57 such student forms, and between a third and one half of faculty forms left at least one open-ended response blank.)

The open-ended questions also asked what part of the Sufficiency requirement, if any, had been filled by transfer credits, and responses to this question were also tabulated.

A few inconsistencies in defining categories for the A and B tables should be noted. In the data processed by Professor O'Donnell (Appendix A), Art History packets were merged into the History ones. Committee members reviewing the open-ended questions (Appendix B) kept Art History as a separate category, but merged HU Sufficiencies into the History category.

SURVEY FINDINGS FOR 2003-2004 SUFFICIENCIES

Individuals and disciplines will be able to track responses of particular relevance to themselves in the data in Appendices A and B. It seems most useful to limit this report to some comments on strengths and weaknesses we found from the data.

1. Strengths of the Sufficiency Experience

Both students and advisors were especially positive about how students learned to research and write in their coursework as preparation for the final one-third unit. Responding to the positive statements on coursework as preparation, student and faculty mean responses were 4.09 and 4.20 respectively, with a congruence of 0.90. Students and advisors agreed that there had been thematic relationships between the courses and the Sufficiency Project (or final course), although students found more satisfaction than advisors. The student mean here was 4.10, the advisor mean was 4.09, and the congruence was 1.48. (See Appendix A, tables b and c.)

In the open-ended comments, very few students stated that defining a topic was a weak or unsatisfactory part of the process. Ten percent of faculty comments on student strengths mentioned student knowledge and selection of the topic. (We considered agreement expressed by ten per cent or more of the sample a significantly large percentage.) Six percent said that students applied course materials well in the Sufficiency project. The discipline where advisors were most positive was Music, with 50 percent of advisors commenting favorably on use of course material. Students in English and related disciplines, Philosophy/Religion (PY/RE), and Foreign Languages expressed satisfaction with course content and choices in the greatest numbers (with 10, 12 and 14 per cent of comments respectively in each discipline). (See Appendix B, tables 3, 7 and 8.)

Satisfaction seems to have been even higher in Creation/Discovery. Seventy-five to 90 per cent of student responses to every question were Agree or Strongly Agree. The highest mean, 4.33, was in response to the statement, "I grew in perception and sophistication regarding the project topic." The mean response to the statement on originality and individuality in the topic was also high at 4.23. (Appendix A, tables 1a and b.) Open-ended comments in this area speak frequently to a sense of personal ownership of the project (14 per cent), followed by developing research or library skills (13 per cent) and development of depth of knowledge in the discipline or topic under study (13 and 11 per cent). Thirty-eight percent of Art History responses spoke to the sense of ownership; students in Music and History spoke of increased strength in research (23 per cent and 19 per cent); students in PY/RE spoke of increased knowledge (16 per cent of their positive responses were on this topic). Twenty-three per cent of Music students' responses stated that artistic creation was the strongest aspect of their experience. (Appendix B, tables 2 and 3.) Advisor comments in the open-ended questions offer less directly positive statements on this topic. Among advisors, 17 per cent of positive comments referred to good research skills and 19 per cent to good work habits; 18 per cent spoke to good writing and revision skills (although this could be grouped with Conveyance too). Ten per cent wrote about student enthusiasm for their work; interestingly, this was highest among Foreign Language advisors (22 per cent). (B, tables 7, 8.)

Students also stated that they were strong and felt satisfied in Conveyance, especially written conveyance. Between eighty and ninety per cent of students surveyed gave a 4 or 5 (Agree or Strongly Agree) when responding to statements on this topic. Mean responses were highest when students answered "My project communicates its intent," "My project is of professional quality," and "I am proud of my project." (The latter mean was highest at 4.47.) (A, tables 1 a and b) Comments in the open-ended section suggested the same thing. Open-ended student comments across the disciplines reveal development of writing and argumentation skills as a source of satisfaction. Sixteen percent of all responses to the "positive experience" question, the highest percentage of responses to this question, spoke to writing. Students spoke most often to this in English and related disciplines (34 per cent) and Art History (23 per cent), with History and PY/RE close behind (16 and 15 per cent respectively). (B, table 3)

What advisors seem to have ranked most highly among student strengths is the students' ability and willingness to work smoothly with them. After satisfaction with appropriate student course sequences (mean 4.20), the two next highest means were for "The student easily found that I was the appropriate consultant for this project" (4.08) and "The student was receptive to my guidance" (4.16). This indicates that by and large students are well acculturated to the mechanism of the Sufficiency sequence and are mature enough to find, and profit from, expert advisors in the sub-

fields of the humanities. (A, 1b) The range of means for other questions, however, will be discussed in the next section.

Speaking to areas of high student satisfaction, advisors' rankings of student work in Conveyance were in the seventieth percentile, with the exception of the comment on oral presentation, where Agree or Strongly Agree were checked by only 60.72 of advisors. The highest advisor mean for this category was 3.99, for "The project communicates well with its audience." All advisor means here were between 3 and 4, and congruence was below 1. (A, 1 a-c)

2. Weaknesses of the Sufficiency Experience

It seems to this committee that relatively few aspects of the Sufficiency experience were weak, as far as we can tell from the surveys. There are, however, some areas of concern and of ambiguity. Most of the problems we found, if we can call them that, concern things that are ambiguous rather than clearly flawed. We were also disappointed by responses that suggest, if not apathy, at least unenthusiastic neutrality about the Sufficiencies carried out in the period of the survey. Finally, the often skewed or incomplete sample pools we worked with added a level of ambiguity to the whole process that makes for the opposite of useful analysis.

In the "Preparation" section, when asked whether the courses had been necessary preparation for the final 1/3 unit, responses from both students and advisors were barely better than noncommittal--student mean 3.12, advisor 3.73. The student mean seems disturbingly low, and 19.39 per cent of students marked Disagree in response to this question. (29.08 per cent, the highest concentration, chose Noncommittal, and just over 27 per cent chose Agree.) Broken down by discipline, the History student mean response to the statement "I could not have undertaken my final 1/3 unit without my previous course work" was 2.85--a vote of dissatisfaction, we believe--compared to a 3.58 mean among advisors. (A, 1b, 3a)

Means for Foreign Language students' responses to Preparation questions were all below 4. Means for the questions on the relation of the coursework to the final 1/3 unit were below 3, although just below 4 on the topic of thematic coherence. Advisor means for these topics were quite a bit higher--above 4--although the advisor means for "the course work inspired the project" and "the student formulated the topic with little difficulty" were below 3. Both the low means and the poor congruence seem noteworthy, although we have to note here that (1) few Language students prepare Sufficiency projects, generally taking a sixth course instead, and (2) the pool of complete Language packets was small. We therefore find it very difficult to say from our processing of the data what gave us these results for Foreign Language. The question of adequate size of the sample also makes it difficult to know what to say about the data for Music, for which mean responses to questions about preparation were highest of all the disciplines. (A, 5b, 6b)

When students listed the weaknesses of their experiences in the open-ended section, one of the most frequent criticisms concerned the quality and difficulty of the courses in the Sufficiency sequence. Foreign Languages and Art History students expressed the greatest frustration here, with 45 and 25 per cent respectively. However, dissatisfaction was visible to some degree in every discipline, with ten per cent or more comments in every discipline expressing dissatisfaction with courses. Students in Art History frequently complained of limited course choices (13 per cent).

PY/RE and Music students also complained, as did Art History students, about course availability. (B, 4-5)

Six percent of students found advising to be weak. Most of these latter complaints, however, concerned finding an advisor, not the quality of advising once an advisor had been found. In other responses not covered by the committee's categories, students in Foreign Language and Art History complained of sparse laboratory and library resources respectively. (B, 4-5)

Student satisfaction in Creation and Discovery was higher than in Preparation; advisors, however, were less positive. The advisor mean for the comment on originality was only 3.69. In fact no advisor mean for this area was above 4.

In Conveyance, for the statement on oral presentation, 40.82 per cent of students gave a noncommittal response of 3, and only 38 per cent marked Agree or Strongly Agree. As noted above, faculty response here was lukewarm, with only 60.71 of advisors marking Agree or Strongly Agree. The advisor mean response here—3.24—was by far the advisors' lowest. This statement saw by far the greatest numbers of responses of 0 (Not Applicable)—7.14 per cent for students, 17.35 for faculty. (A, 1a-b)

We are a bit concerned that even on the question of confidence/ability in written expression, which would seem to be a source of strength, the student mean was only 3.84 and advisors' 3.88. (A, 1b) Writing and argumentation were in fact categories which many students regarded as their weakest area--twenty-three per cent of all responses for the "weakness" question. Students in Music (36 per cent) and Language Arts (31 per cent) expressed dissatisfaction with the writing/argumentation aspect of the Sufficiency most often. (It should be noted that the Music samples were small, with 12 student responses in total.) (B, 4-5)

The mean for all questions about continuing student interest in Humanities and Arts and growth in critical thinking, for both students and advisors, was just below 4. One exception was student response to "I have acquired solid background and knowledge in my Humanities and Arts area," where the mean was 4.11. The responses suggest satisfaction and commitment, but not great fervor in either—a matter of concern when one regards the growing stress at WPI on outcomes. By discipline, English had the highest means for Outcomes. Only small percentages of comments stated that exposure to humanistic aspects of life issues or lifelong learning in the humanities had been strong aspects of the Sufficiency experience (2-3 per cent). A few students in Drama Theater and Art History found extra-classroom aspects of their coursework, such as attending productions or having classes at the Worcester Art Museum, were their strongest experiences.

While advisors praised students for their willingness to work and learn, there was testimony to the opposite reaction as well. Thirteen percent of faculty complaints overall were on weak student work habits. Twelve percent commented on weak use of sources and another 12 on failure to analyze well. Only four percent of faculty stated that student work had been original or complex. The third-lowest overall faculty mean was on this topic—3.69 for "The student has shown originality and individuality." The second-lowest, after the one for oral presentation, was 3.49 for "The student formulated the topic with little difficulty." (B, 9; A, 1b) This, seen in light of the high advisor means for student ease of advisor selection and student amenability to faculty guidance,

suggests that while students follow the Sufficiency system well, faculty do not especially see them, to use an ancient business-motivational term, as self-starters.

The range of advisor means in their questionnaires, from high to low, was not very high. However, the faculty mean was above 4 for only four questionnaire statements, out of twenty-two statements. (Two of the above-4 means were on preparation through courses, the other two on student amenability to being advised.) All other means were between 3 and 4, or just above the median of an absolutely noncommittal response. While advisors do not think their students are doing badly, they are not, apparently, very positively impressed by them either. This tepid reaction by faculty to their students, at the moment when the students climax their college careers in the Humanities and Arts, strikes us as a not very positive sign.

3. Transfer Credits

The largest percentages of students receiving transfer or AP credit toward the Sufficiency were in English, Drama/Theatre, and Rhetoric, totaling 41 per cent of those using transfer or AP credit. We think that this may be because a composition course taken before matriculating at WPI can be easily transferred to a Sufficiency sequence in one of these disciplines. History was second, with 20 per cent. Some faculty in the English-language areas expressed concern that some transfer credits may not have been relevant to the WPI experience.

A few students complained that their transfer credit was not recognized. Faculty in History commented on this too, but also complained about students doing Sufficiencies with credits mostly from other colleges. On the whole there were few comments on transfer credit as part of the Sufficiency experience.

SURVEY FINDINGS FOR THE CLASS OF 1998 QUESTIONNAIRE

The committee received (in no particular order) 17 replies from students who had done Sufficiency work in Foreign Languages; 16 from Philosophy/Religion; 21 from History; 9 from Art History (one of whom included American Studies coursework and topic development, and another of whom included Photography); 6 from English; 5 from Music; 3 from drama/Theater; 2 from International Studies; and 1 in Writing.

The form sent to alumni differed from the one distributed to current students, although all kept for format of a 1-5 response (or N/A) to statements, and space for comments on strong and weak aspects. The topics dealt with the overall Humanities and Arts experience, not just the Sufficiency (although the two were basically the same in practice). Question 1 asked whether the overall Humanities and Arts experience had been satisfactory. 2 and 3 asked whether exposure to the liberal arts at WPI had been too little or too great. 4 asked whether the respondent had kept up an interest in the humanities and/or arts. 5 and 6 asked whether the alumna/alumnus had found continuing value in her/his coursework, professionally or in personal enrichment. 7 and 8 asked if the experience had strengthened the respondent's abilities in written and oral expression.

Mean response was highest for the question of personal enrichment (4.13). Drama/Theatre respondents and the Writing student responded most strongly (5), followed by Music and English

(4.2, 4.33). International Studies was most lukewarm with a 3.5 mean. The lowest mean was in response to the comment that Humanities and Arts exposure had been too great (1.93). Responses to 3 suggest that the less than enthusiastic mean for question 1 on overall satisfaction—3.85—can be explained by alumni’s feelings that they would have enjoyed more courses. However, responses to statement 2, “my exposure was too little,” was almost exactly at dead median (3.02).

As in the surveys of current students, alumni tended not to agree with any warmth to the statement that they had been well trained in oral expression (3.18). Satisfaction with written expression had a mean score of 3.47, which is not terribly warm either. Language and International Studies students’ mean satisfaction with their training in writing was below 3. The Writing student’s was 5.

Students indicated that they continued to take an interest in their WPI liberal arts fields (mean 3.99), but were less high in ranking the experience’s vocational usefulness (3.61). One language student commented in the open-ended section that his education had helped him in his military career. Two respondents went out of their way to say that they had made no use of their humanities education at all.

Twenty-three students wrote in their open comments about writing communication, either that they appreciated the training or that they wished they could have been better trained. Twenty-nine alumni wished that there had been more course offerings or wider approaches to their discipline. This was the single largest category of comment in the open comments and included seven out of the nine Art History respondents. (These also commented that they had enjoyed the museum visits that were part of the discipline.) There were also comments to the effect that WPI’s advising system—not the Department’s—had been weak in letting the students know what to expect in their Sufficiency work. Aside from the topics of writing and course offerings/breadth, no one category of open-ended commentary was picked up by more than 10 alumni, and aside from Art History there do not seem to be particular concerns that mark out alumni in any one discipline. Five students (four in History, one in PY/RE) stated that Humanities and Arts coursework had been the best part of their entire WPI experience.

OBSERVATIONS ON SURVEY RESULTS; RECOMMENDATIONS

The survey format prepared by the 2003 committee works well. It permitted students and advisors to express fairly specific opinions on several issues, and was fairly easy to process with rudimentary programming tools. (There were some missed opportunities here, however, as will be discussed below.) The open-ended section was helpful. We considered recommending that the categories invented by Professors Higgins and Menides to tabulate these questions be adopted in the next survey. However, we now recommend instead that these questions be kept fully open, to allow and measure for changing preoccupations.

We see no evidence that the past year’s students’ Sufficiency experience is better or worse than that of the class of 1998. Students then and now had many of the same concerns and felt many of the same satisfactions.

Writing is an area of great accomplishment in the Sufficiency sequence, and almost as great an area of concern. Students take pride in selecting, developing, and writing projects independently.

Students and advisors both report some initial difficulties with the research and writing process, but both seem to have decided that the students had used the Sufficiency process to improve their skills here. Advisors are only slightly less happy with student research and writing than are the students themselves. A notable number of alumni commented that they wished there had been more training in how to write scholarly prose.

We do not see the use of transfer credits toward Sufficiency work creating any great problem, at least that we can identify from these surveys. This seems to come closest to being a burden in History, the largest Sufficiency-producing discipline. We did not find glaring problems reported by students or faculty in Music or Foreign Languages, which had been raised by last year's and previous committee as possible areas of concern. However, the very fragmentary nature of our data for these disciplines keeps us from reaching any conclusions. In particular, since the FL practice of a sixth course instead of a final project has been a topic of departmental interest, our lack of confidence in our data pool means that our attempt to get meaningful feedback on FL practices is at least a partial failure.

The small number of students claiming the humanities as an important element of their continuing life experience suggests that at least as far as students now feel, an often-cited outcome of the WPI education is not being met. Perhaps students will change their minds over time, as commentary along these lines is more prevalent in the alumni surveys.

We had great difficulty dealing with the irregular timing and nature of submission of these forms. A large number of packets and partial packets--some from B term--came to us a month or more after the end of the academic year. In some disciplines, especially Music but to a degree Foreign Languages, there were so many Sufficiencies for which we had no surveys that we felt uneasy about trusting the adequacy of our samples. In other disciplines the lack of forms from individual faculty members undoubtedly skewed the results for the discipline. In general, unfortunately, those disciplines whose differences from the "usual" Sufficiency sequence routines have aroused concern--languages and music--have been hardest to adequately track in this review.

We feel we can tentatively make some recommendations, and point to some areas the department will need to address.

- Since our students seem not to be arriving at WPI with any extensive experience with writing—especially analytical and argumentative writing—working with them on their writing skills in their courses, before they begin the Sufficiency Project (or final 1/3), will certainly be beneficial. It is not clear from the surveys if students are making use of the Writing Center or library research tutorials, or if any advisors are recommending these resources to students during the course of the Sufficiency Project.
- Mean responses tilted toward mediocrity (a mean of 3) in several areas: originality, student motivation, and the adequacy of the department's courses as preparation for the final project or course. Faculty expressed some measurable dissatisfaction with student work habits. Course availability, and perhaps difficulty and quality of content, are an issue in a few disciplines. These are all targets for improvement.

- Departments with a high rate of non-return for these surveys should be canvassed; it seems probable that faculty overload in many cases made instructors prioritize their teaching and revising over the preparation of forms like these. If the department does its next Sufficiency review in enumerated form, a proper survey will require a good deal of self-policing on the part of the faculty, or correction of the conditions that keep faculty from dealing with these forms. If the next review does not have a significantly higher percentage of full documentation, the process will not work.
- Our only breakdown of the data beyond means, congruencies, and deviations for the department as a whole was by discipline. This will be useful, we think, but other software and programming decisions—and perhaps a few more categories for questions and comments—might let us look more closely into circumstances of good and weak Sufficiencies. Can Sufficiency satisfaction, on both advisors' and students' parts, can be linked to the student's year at WPI? Do seniors do better or worse than sophomores or juniors? Was a student overloading or completing an IQP or MQP while creating the Sufficiency project? How many different instructors have the students had in the course of the Sufficiency course work? Is there a difference in performance and satisfaction between, say, History, with a large faculty, and German or Art History, where a student might have only one or two instructors? Was the student exposed to any coursework outside the main discipline, or to interdisciplinary courses? Would this make it easier or harder to pose and work with a topic? These might be logical groupings for organizing the next survey's data.
- We note that if reviews are going to be analyzed quantitatively, they can be performed by any statistically apt person. The more apt, the better, and we recommend bringing in a programming and/or statistical consultant for the next review. At the very least the next committee should be able to budget for photocopying and programming assistance, perhaps by a Work-Study student (keeping in mind that student confidentiality would be an issue to be dealt with in that case).
- In theory, a review by a Computer Science or Social Sciences professional would not require a HU/A faculty presence at all. In fact, the department's members need to continue to be intimately involved with the review process. One question that can only be answered by members of this department is: what do we want these numbers to mean? If the statistical breakdown keeps giving us means in the 3 range, what do they mean to us and do we want to live with them? Do the lukewarm responses on Outcomes give us cause for alarm, or should we, as a department, define "outcomes" in a different way than others in the university? This report, in itself, answers nothing, but may perhaps be more useful than earlier reviews in leading us to ask useful questions.