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URI/GSO
Academic Assessment Report
Faculty
2021

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Assessment Leads: ¶

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I. Executive Summary

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In November of 2020, Dean Paula Bontempi requested an assessment of the academic program at the University of Rhode Island's Graduate School of Oceanography (URI/GSO) administered by Robert Pockalny (Associate Marine Research Scientist) in collaboration with David Smith (Associate Dean of Academic Affairs). A series of three surveys were discussed to target matriculating URI/GSO graduate students, recent alumni, and potential employers. After administering the first two surveys to graduate students and alumni, the assessment team chose to target URI/GSO faculty, since much of the desired information from potential employers was provided by the alumni survey. This report presents the results of the URI/GSO academic assessment from URI/GSO faculty.¶

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Two initial surveys with 76 items and a supplemental survey with 5 items were designed with the online SurveyMonkey™ application with the assistance of 6 existing faculty members. A link to the survey was first distributed to URI/GSO faculty listed on the "GSO_faculty@listserv.uri.edu" listserve for a five-week period from June 7, 2021 to July 13, 2021. A supplemental survey was distributed for a five-day period from July 21, 2021 to July 25, 2021. Response rates for the surveys ranged from 73% to 85% of the potential 33 faculty. Several emeritus faculty also responded, but those responses are not included in the final analysis.¶

¶

Some of the key and notable results of the core curricular program assessment include, (numbers in parentheses are ratings on a low-to-high scale of 0 to 100, respectively).¶

- Core Curriculum Components
  - highest ratings for Thesis/Dissertation Defense (92), Student Seminar (82), and Research Proposal Presentation (82)
  - lower ratings for the Cruise Requirement (67) and Comprehensive Exams (65)
- Core Courses
  - overall usefulness/appropriateness of the core courses are deemed moderately-high to high with highest ratings for PhD students (76-81), followed closely by MS students (69-75), and then MO students (62-63)
  - most preferred scenarios are *Slight Modification* (64) or *Significant Modifications III* (57), which are strongly dependent on curricular group
  - core course requirements also exhibit a strong curricular group dependence
  - preferred teaching models include single or multiple instructors with a 3-5 year rotation (61, 62)
- Electives
  - content of elective courses are generally biased toward concepts relative to skills and target all degree paths with a tendency toward interdisciplinary interests
  - several comments about needing a predictable schedule to optimize students' Programs of Study
- Student Seminar
  - highly rated aspect of core curriculum (82) with advisors providing "significant" guidance
  - no major changes are desired, but maybe *post-seminar snacks/discussion* (75), *prioritize student questions* (65), and *provide exemplars* (59)

- Cruise Requirement
  - still considered moderate to high importance (67), but lower ratings by early-career faculty
  - possibly modify requirement for approved alternative field programs to expand inclusivity (e.g., disabilities, family issues)
- Research Proposal Presentation
  - highly rated component of core curriculum (82), but requires more stringent timing/scheduling
- Comprehensive Exams
  - lowest rated aspect of the core curriculum requirements (65) with substantially lower ratings by early-career faculty
  - curricular groups and career stages have somewhat differing opinions about the purpose of the comprehensive exams
  - preferred timing is *upon completion of course requirements* (64) or *at the end of the second year* (61), with a most-preferred written format of *sub-discipline-specific exam at a prerequisite time for a cohort-year of students* (60)
- Thesis/Dissertation Defense
  - highest rated component of core curriculum (92) with no significant changes needed, but some suggestions for shorter (20 min.) presentations for MS students
- Outreach
  - considered a highly rated component for students' experience (73), but consideration of a requirement is rated lower (60)
  - faculty participation in outreach activities ranges from low to moderate
- Promotion and Tenure
  - ratings of factors used are *Publications* (80), *Research $$$* (78) followed by *Student Advising* (56) and *Teaching* (52)
  - rating of factors preferred are similar for *Publications* and *Research $$$*, but increase all other factors by 10 to 30 rating points, except no change for *Undergraduate Teaching*
- Skills
  - soft skills and technical skills have similar patterns for faculty and students with a significant decrease of importance for the technical skills by about 30-40 points
  - capstone skills (e.g., proposal writing, pedagogy) are deemed important, but to a lesser degree for students
  - perceived opportunities for students to receive skills at URI/GSO are rated lower by 10-15 points
- Facilities and Services
  - highest rated importance personnel are *SRGAs* (95), *Support Staff* (67), and *Research Technicians* (65)
  - lower rated importance are *Equipment Development* (45) and *URI Administration* (51)
  - highest rated quality facilities are *Support Staff* (67) and *Library* (66)
  - lowest rated quality facilities are *Small Boats* (31), instruction-related items (44-46)
- Undergraduate Teaching
  - no significant change in the size of classes is desired, except possibly reduce the number of large-capacity courses
  - some interest in courses that involve in-class activities or demonstrations

- Teaching Styles
  - greatest preference to focus on graduate-level courses (59, 72) versus solely undergraduate courses (23)
  - time, facilities, and resources are frequently cited as impediments to preferred teaching formats
- Advising/Mentoring
  - responses for advising and mentoring of graduate students exhibit very similar overall patterns with little difference between the importance and the self-reported effectiveness
  - highest ratings for *Student Research* (86, 91) and *Manuscript Preparation/Publication* (84, 91) with significantly lower ratings for *Social Networking* (45 to 61) and *Navigating GSO* (53,55)
- Open-ended Comments
  - common prideful aspects of GSO include students, collegial atmosphere, community, research accomplishments
  - common frustrating aspects of GSO include reluctance to change, lack of diversity, mentorship issues
- Next Steps
  - highly rated approaches include *dedicated faculty retreat* (71), *pedagogy/curriculum assistance* (67), and *allow curricular groups to decide* (52)

II. Academic Assessment Report

1. Introduction

This report presents the results of an assessment of the academic program at the University of Rhode Island's Graduate School of Oceanography (URI/GSO) requested by Dean Paula Bontempi and administered by Robert Pockalny (Associate Marine Research Scientist) in collaboration with David Smith (Professor and Associate Dean of Academic Affairs). This is the third component of a proposed three-component program to assess the status of the academic program at URI/GSO. This component focuses on the perspectives of URI/GSO faculty.¶
¶
Our assessment builds on our previous survey of graduate student and alumni surveys conducted in January 2021 and April 2021, which sought student's and alumni perspectives regarding various components of the academic program and degree requirements including core course concepts and skills, GSO-based electives, student advising/mentoring, student seminar, cruise requirements, proposal defenses, and comprehensive examinations. We also sought to identify potential factors impacting student recruitment, preparation, and retention, as well as various aspects of alumni careers.¶
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2. Timeline of Events

A timeline and summary of the key events for the development of the assessment tool, the analysis of results, and the delivery of this report are provided in Table I. Methodology of survey design and analysis are provided in Appendix D.¶
¶
Table I. Gantt chart identifying the timing and duration of academic assessment program.¶

Event¶	**May 2021**¶				**June 2021**¶					**July 2021**¶			
Recruit faculty participants in survey design¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶
Present preliminary outline to design team¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶
Design of survey¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶
Survey collection¶ (June 7, 2021 to July 13, 2021)¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶
Analysis and synthesis of survey results¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶
Initial draft report¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶
Supplemental survey (July 21, 2021 to July 25, 2021)												○ ¶	○ ¶
Finalize report¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶
Deliver report to Dean Bontempi¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶	○ ¶

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3. General Observations

The provided observations are very preliminary and require additional analysis to realize the full potential of this data set. As an initial attempt to interpret these data, we present a purpose or goal of each question followed by a preliminary analysis and accompanying plots. A full list of survey items, SurveyMonkey™ formatted topics, graphical/statistical results, and text-based comments are presented in the appendices.¶

3.1 Response Rates

The survey was made available to all former and present URI/GSO faculty listed on the "GSO_faculty@listserv.uri.edu" listserve for a five-week period from June 7, 2021 to July 13, 2021. A total of 28 of 33 potential faculty (85%) attempted the core curricular program survey with a completion rate of 84% and a typical duration of 22 minutes (Fig. 1). For the faculty-related topics of interest survey, 24 of 33 faculty (73%) attempted the survey with a completion rate of 67% and a typical duration of 20 minutes (Fig. 2). For the supplemental survey, 26 of 33 faculty (79%) completed the survey with a typical duration of 4 minutes. In all cases, response rates are well above 50%, which is considered an excellent response rate for on-line surveys. Average response rates for general surveys are 33% and slightly lower (e.g., 29%) for online surveys (https://surveyanyplace.com/average-survey-response-rate/).

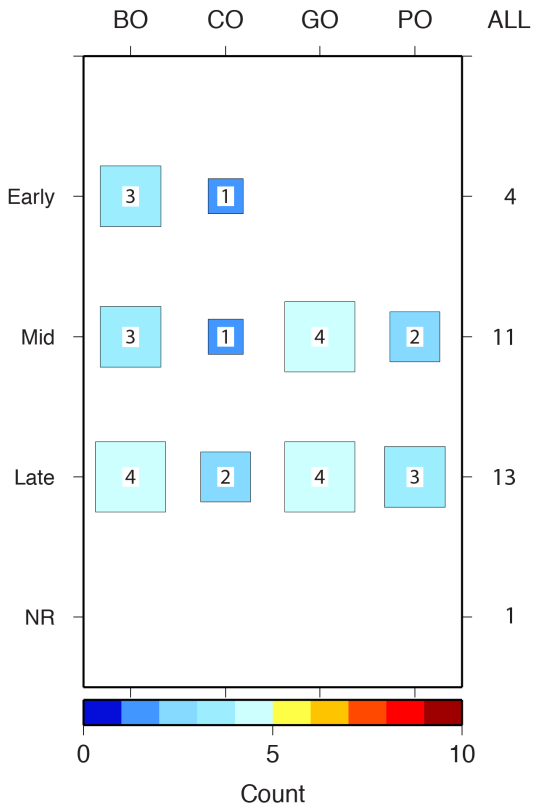

Figure 1. Faculty response distribution of the core curriculum portion of the survey for all respondents disaggregated according to career status and curricular group. Response distributions are illustrated as heat maps with the color and size of square symbols corresponding to the number of responses within each disaggregated group. The numbers to the right of the plot are the total frequencies for each career option.

The majority of responses for the core curriculum survey were from faculty in the Biological Oceanography curricular group (10) followed by Geological Oceanography (8), Physical Oceanography (5), and Chemical Oceanography (4) with one non-disclosure. The respective response rates for these groups are 100%, 67%, 71%, and 100%, according to the curricular association on the URI/GSO webpage. The distributions for self-reported career status are early (4), mid (11), and late (13).

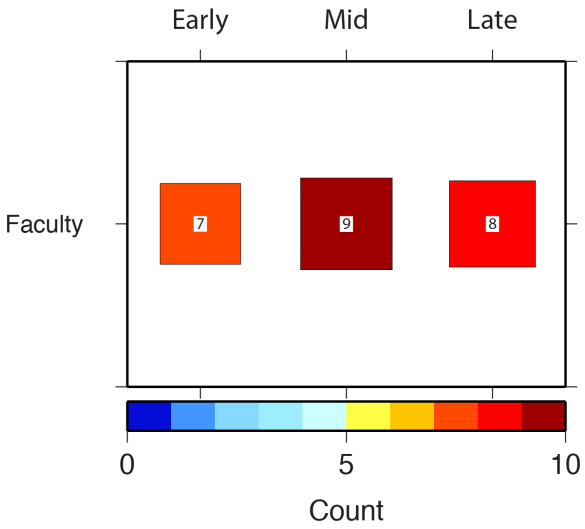

Figure 2. Faculty response distribution of the faculty-related topics portion of the survey for all respondents disaggregated according to career status. Response distributions are illustrated as heat maps with the color and size of square symbols corresponding to the number of responses within each disaggregated group.

The responses for the faculty-related topics were somewhat evenly distributed relative to self-reported career status, e.g., early (7), mid (9) and late (8). Oddly though, this does not necessarily match the relative career status from the core curriculum portion of the surveys. ¶

3.2 General Trends

For an initial, first-order view of the faculty's perspectives of various aspects of the URI/GSO academic program, we combined similar survey question components for comparisons and to identify potential trends.

3.2.a Core Curriculum¶

Core Courses

Survey questions pertaining to the usefulness or appropriateness of the core course for the various degree programs yielded some interesting trends (Fig. 3). The overall usefulness/appropriateness of the core courses are deemed moderately-high to high with highest ratings for PhD students (76-81), followed closely by MS students (69-75), and then MO students (62-63). The Geological Oceanography core course is rated the lowest for all degree programs, while Biological Oceanography and Physical Oceanography core courses are rated the highest for PhD programs.

Our initial attempt to gauge faculty preferences for core course modifications indicate more interest for increasing the interdisciplinary content of course to about 20 to 25% (60-68) rather than creating a 1- or 2-semester overview course (36-44) or multiple versions (38) (Fig. 4). However, it was unclear if this survey question appropriately addressed the full range of core course scenarios and curricular core course requirements, so we created a supplemental survey with questions that explicitly address these concerns (see section 6.2.c Supplemental for results).

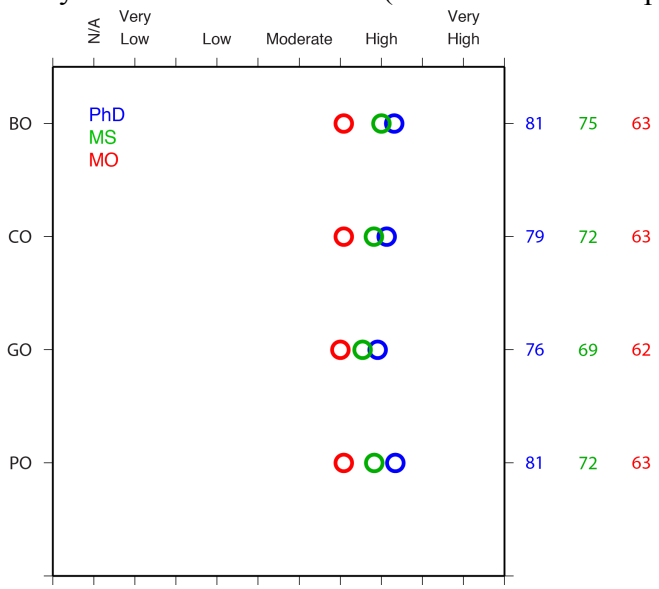

Figure 3. Combined survey results for the usefulness/appropriateness of the core courses (BO, CO, GO & PO) at URI/GSO for various degree programs. Colored circles represent the mean ratings of the various degree programs as indicated, and the numbers to the right are the mean of the ratings on a scale of 0-100.

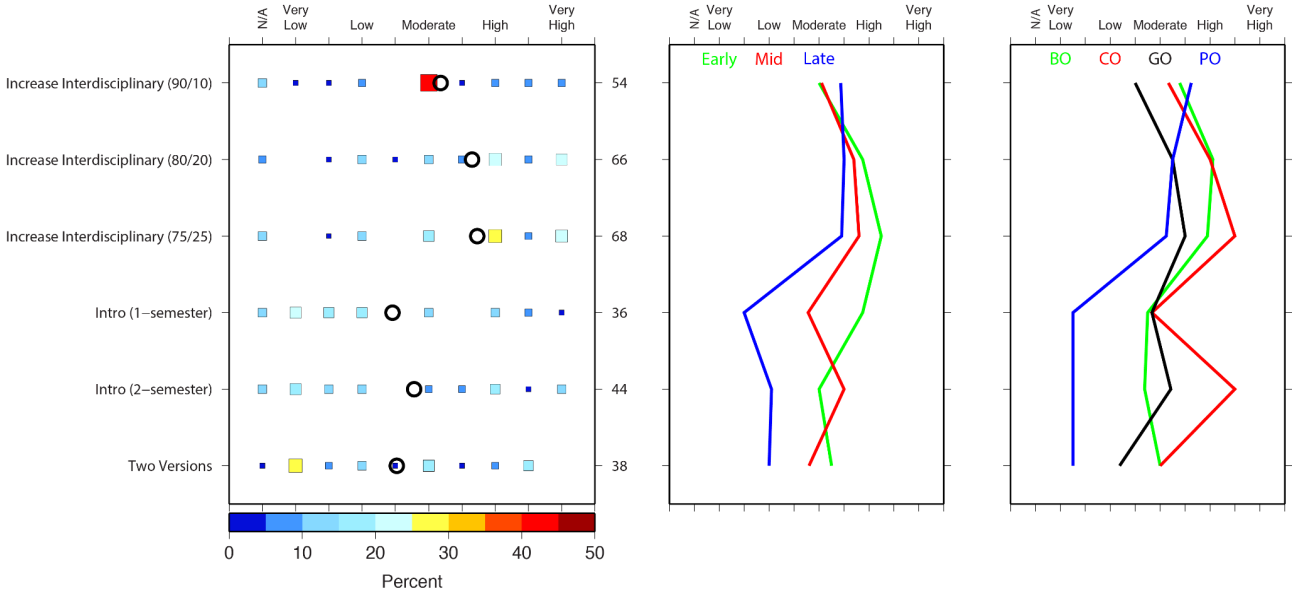

Figure 4. Survey results for proposed modifications to core courses (left) all responses, (middle) by career status, and (right) by curricular group. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot.

Core Curriculum

Several survey questions focused on rating various aspects of the URI/GSO core curriculum were combined to compare the faculty's perspective on the relative importance of the components (Fig. 5). Survey results indicate significantly higher ratings for Thesis/Dissertation Defense (92), Student Seminar (82), and Research Proposal Presentation (82). The Cruise Requirement (67), Comprehensive Exam (65), and possible Outreach Requirement (60) were rated lower. An expansion of Thesis/Dissertation Defense importance indicates slightly higher importance for PhD students (90) compared to MS students (85), and appropriately lower ratings for MO, MO-MBA, and on-line portions (35-42) since these do not exist and many faculty chose the N/A option on the survey.

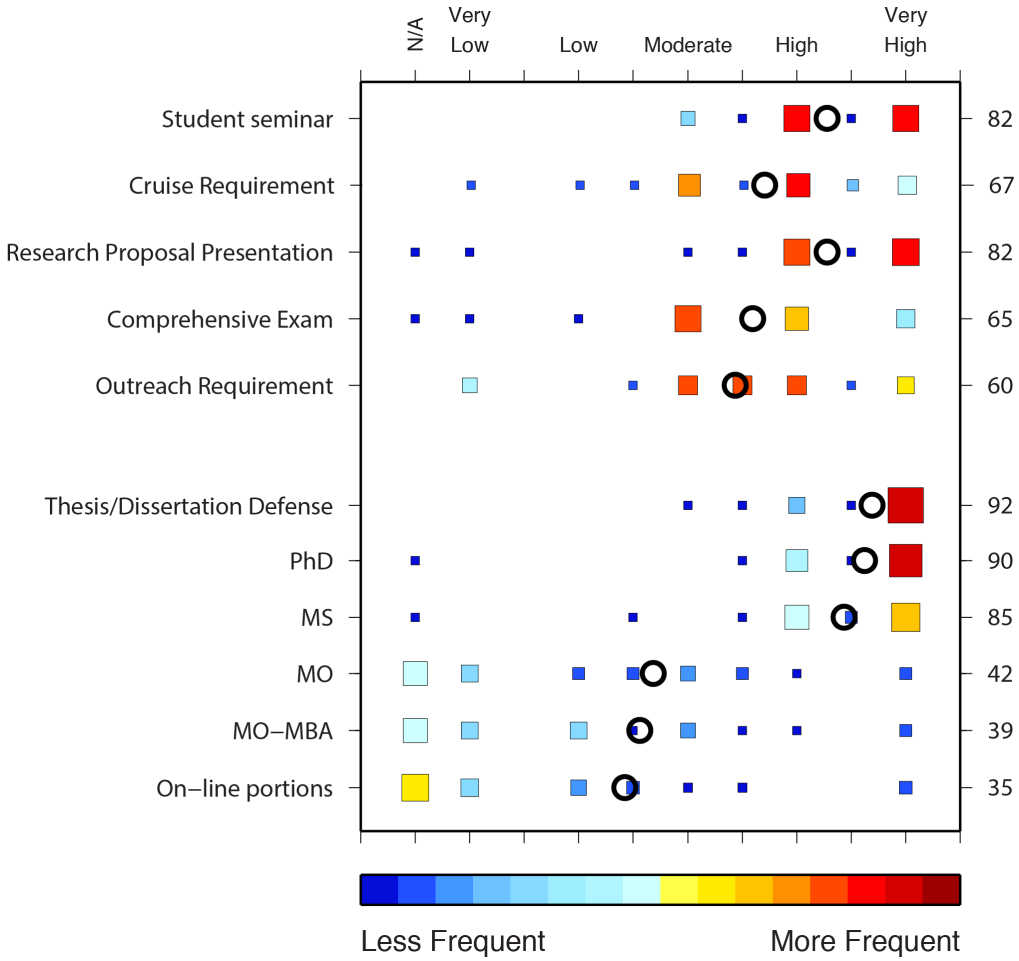

Figure 5. Combined survey results for various components of the URI/GSO core curriculum (top-half) with a focus on thesis/dissertation defense (bottom half). Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot.

3.2.b Faculty Topics¶

Promotion and Tenure

A pair of survey questions were posed about the relative importance of factors used for promotion and the faculty-preferred importance of these same factors (Fig. 6). Not surprisingly, Publications (80), Research $$$ (78) were at the top of the list of factors used with Student Advising (56) and Teaching (51, & 52) lagging significantly behind. For the preferred factors, there is not much change in the Publication and Research $$$, but for nearly every other factor (except undergraduate teaching) the relative importance increased by 10 to 30 rating points.

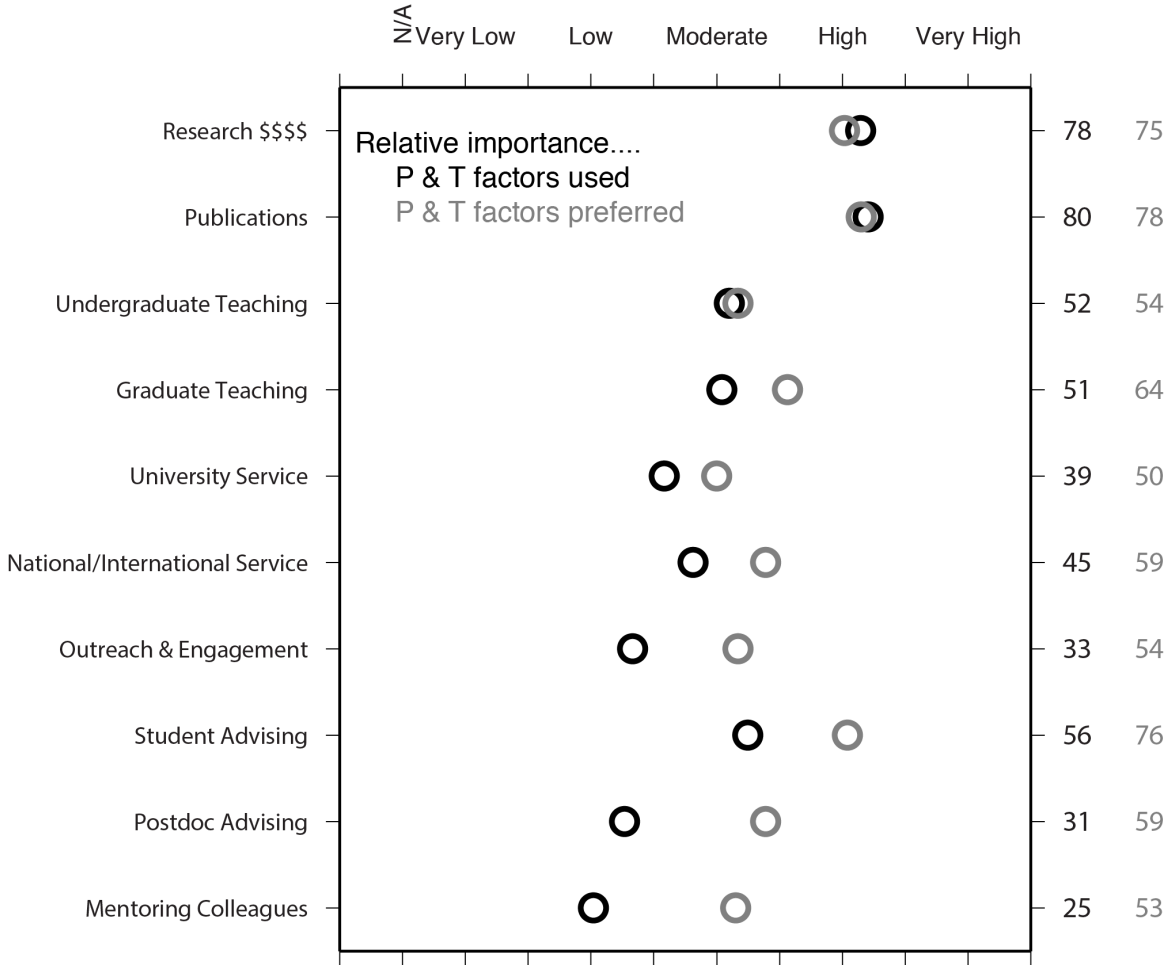

Figure 6. Combined survey results for various factors used and preferred for faculty promotion and tenure decisions. Black and grey circles represent the mean ratings of the used and preferred ratings as indicated, and the numbers to the right are the mean of the ratings on a scale of 0-100.

¶

Skills

Several survey questions were posed regarding the relative importance of various skills for faculty, collaborators, and students, as well as opportunities for students to obtain these skills. We divided the skills into soft skills, technical skills, and what we term "capstone" skills. Several interesting observations are shown in Figure 7. First, we observe similar patterns of importance for faculty and students in both the soft skills and technical skills with a significant decrease of

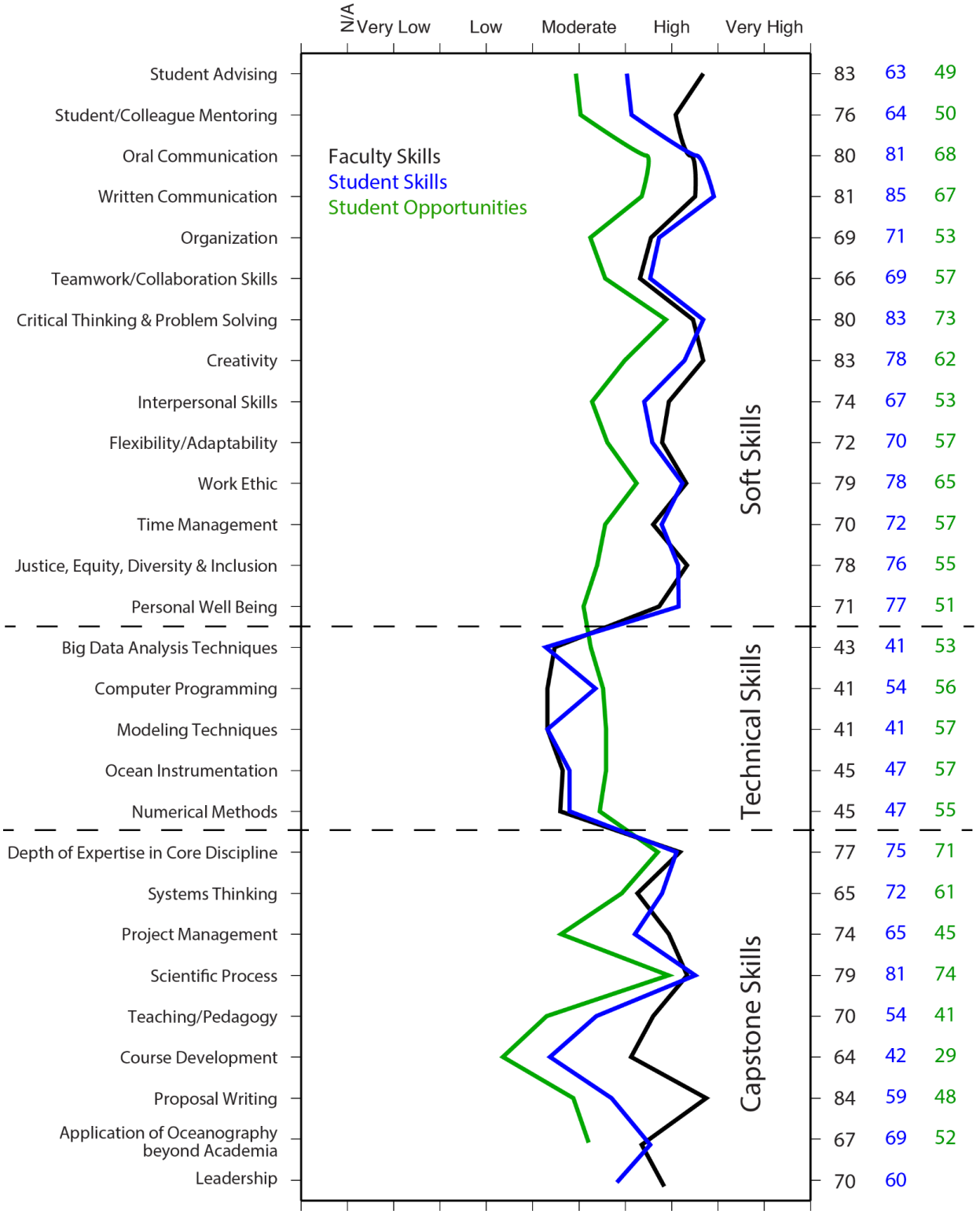

Figure 7. Combined survey results ranking the importance of various skills for faculty and students as well as the opportunity for students to obtain these skills while at URI/GSO. Skills are divided into soft skills, technical skills, and capstone skills. Colored lines indicate the mean ratings for the indicated group and the numbers to the right are the mean of the ratings on a scale of 0-100 for the respective groups.

importance for the technical skills by about 30-40 rating points. Departures from these similar patterns are lower importance ratings of mentoring and advising skills for students and higher importance of computer programming for students.

For the capstone skills, the most significant departures are lower importance ratings for teaching/pedagogy, course development and proposal writing for students compared to faculty. The opportunities for students to gain these various skills are typically 20 to 30 rating points lower than the importance ratings, except for the technical skills, which are about 10-15 rating points higher.

Advising/Mentoring

Survey questions regarding faculty advising and mentoring of graduate students exhibit very similar overall patterns with little difference between the importance and the self-reported effectiveness (Fig. 8). Highest ratings are given for *Student Research* and *Manuscript Preparation/Publication* with significantly lower ratings for *Social Networking* and *Navigating GSO*.

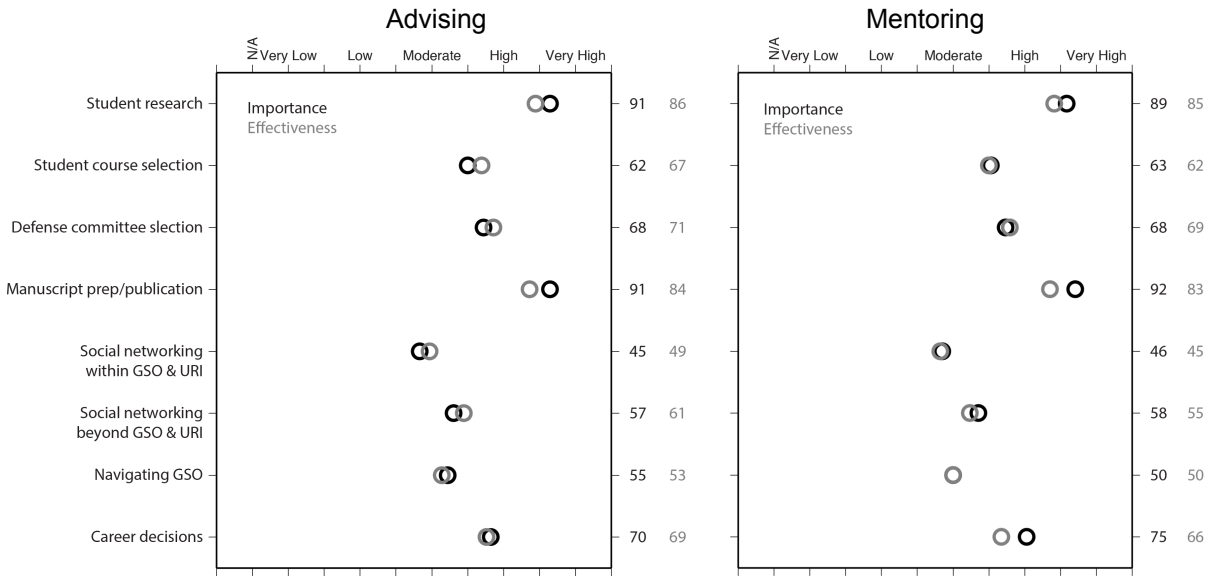

Figure 8. Combined survey results for various the importance and effectiveness of student advising and mentoring. Black and grey circles represent the mean ratings of the used and preferred ratings as indicated, and the numbers to the right are the mean of the ratings on a scale of 0-100. ¶

3.2.c Supplemental¶

Core Course Scenarios

Survey results for various core course scenarios (see Appendix C., Section C. Scenarios for full details) are provided in Figure 9. Results suggest a preference for the "Slight Modification" scenario (64 rating) in which the core courses remain but with increased integration and interdisciplinary content. Another somewhat popular option is the "Significant Modification III" scenario (57 rating) in which the core courses are replaced by a two-semester, expanded overview course that encompasses all of core courses.

A comparison of the survey results for the various curricular groups indicates similar preferences for CO and GO groups and for BO and PO groups. The CO and GO groups prefer the "Significant Modification III" scenario, while the BO and PO groups prefer the "Slight Modification" scenario. The PO group gives the highest preference for the "No Change" option.

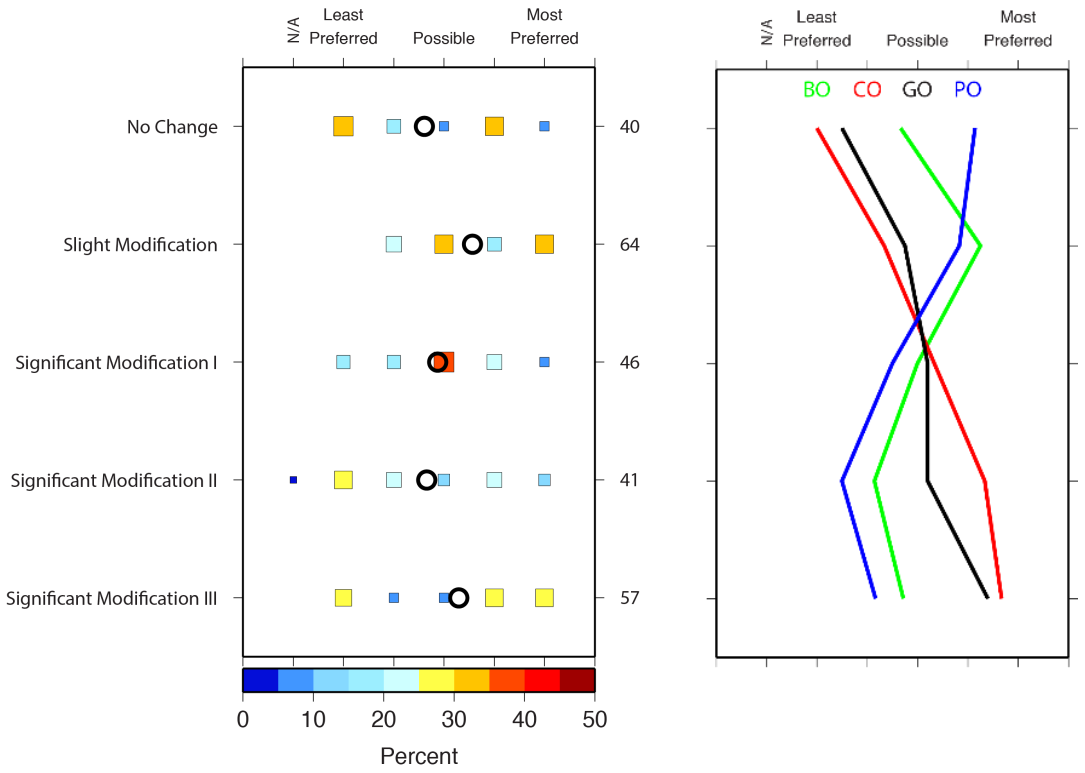

Figure 9. Survey results for various core courses scenarios all responses (left) and by curricular group (right). Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot.

Core Course Requirements

Survey results for various provided core course requirement options are quite varied overall (Fig. 10). The BO and CO groups have somewhat similar responses and lean toward uniform core course requirements for PhD and/or MS students, while the GO group prefers updated requirements for individual groups and PO leans toward "no Change" or separate requirements for the individual curricular groups. The lowest overall rated option is "No Change" (33 rating), and curricular groups tend to prefer that MO students should have unique requirements (57 rating) compared to PhD and MS students.

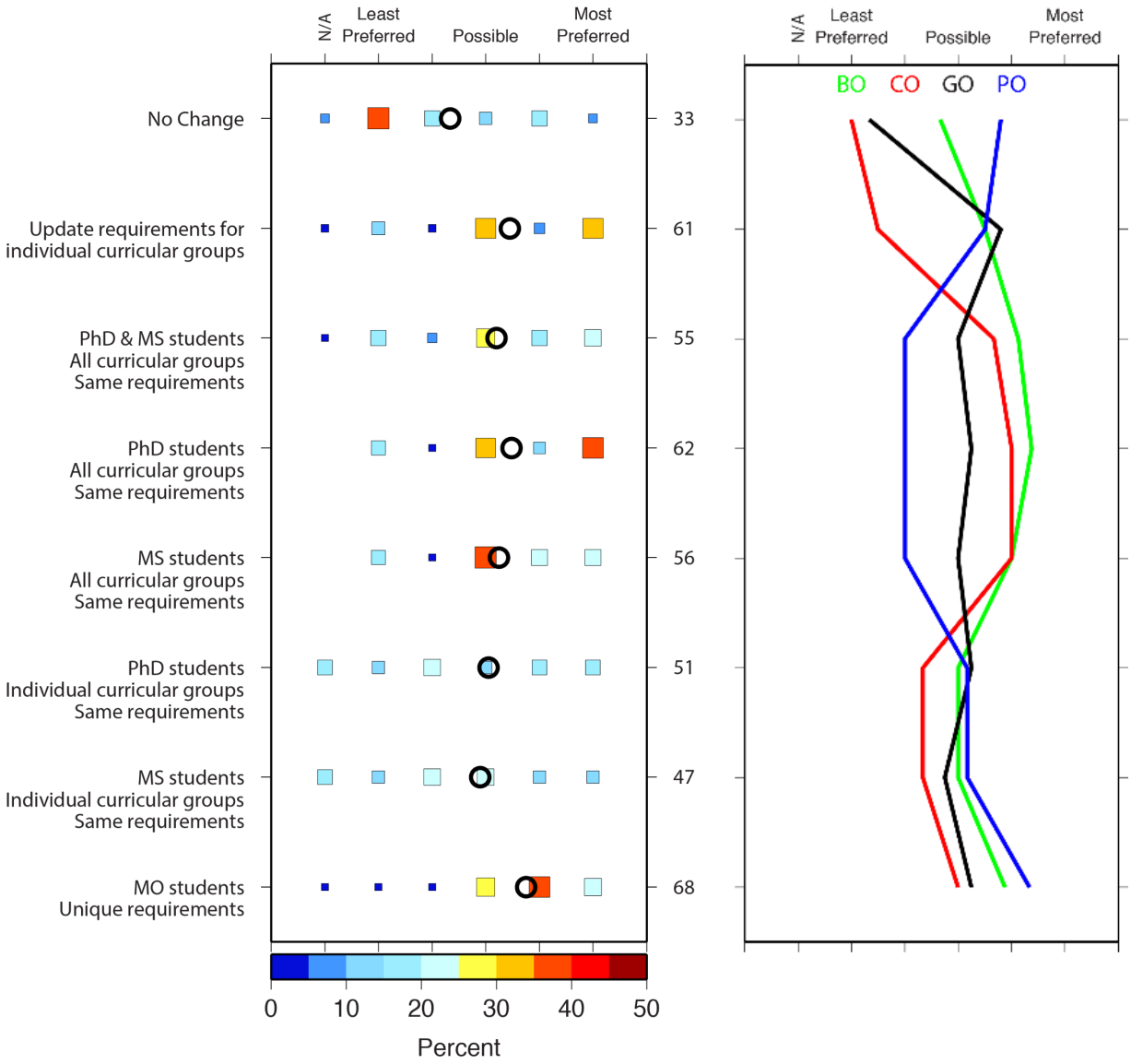

Figure 10. Survey results for various core courses requirement scenarios for all responses (left) and by curricular group (right). Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot.

4. Core Curriculum Observations

4.1 Core Courses¶

Questions:¶

- 4) Rate the usefulness/appropriateness of the present core courses listed below for PhD-level students.
- 5) Rate the usefulness/appropriateness of the present core courses listed below for MS-level students.
- 6) Rate the usefulness/appropriateness of the present core courses listed below for MO-level students.¶

¶

Purpose/Goals→ ¶

The purpose of these questions is to determine how useful or appropriate faculty feel the present core courses are for various degree paths.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 11 - 13).

- Overall
  - ➢ survey results indicate the core courses are most appropriate for PhD students (76 to 81 rating) and MS students (69 to 75 rating) and less appropriate for MO students (62 to 63 rating).

- Trends
  - ➢ the Geological Oceanography core course is consistent rated lower than the other core course for all degree paths by 1 to 6 rating points
  - ➢ early career faculty tend to have lower ratings for the appropriateness/usefulness for PhD and MS students
  - ➢ BO and PO faculty end to rate the appropriateness/usefulness of core course higher than CO and GO faculty
  - ➢ PO faculty ratings are especially high (97) for their core course for PhD students

¶

Comments¶

Depends on the field of study.
Recently modified to accommodate MO students has reduced usefulness.
All are appropriate, but not sure siloed courses are the way to go.
Several suggestions for alternate approaches for core courses.
Difficult to answer for all students.
I don't believe we should require too many courses (flexibility is critical).

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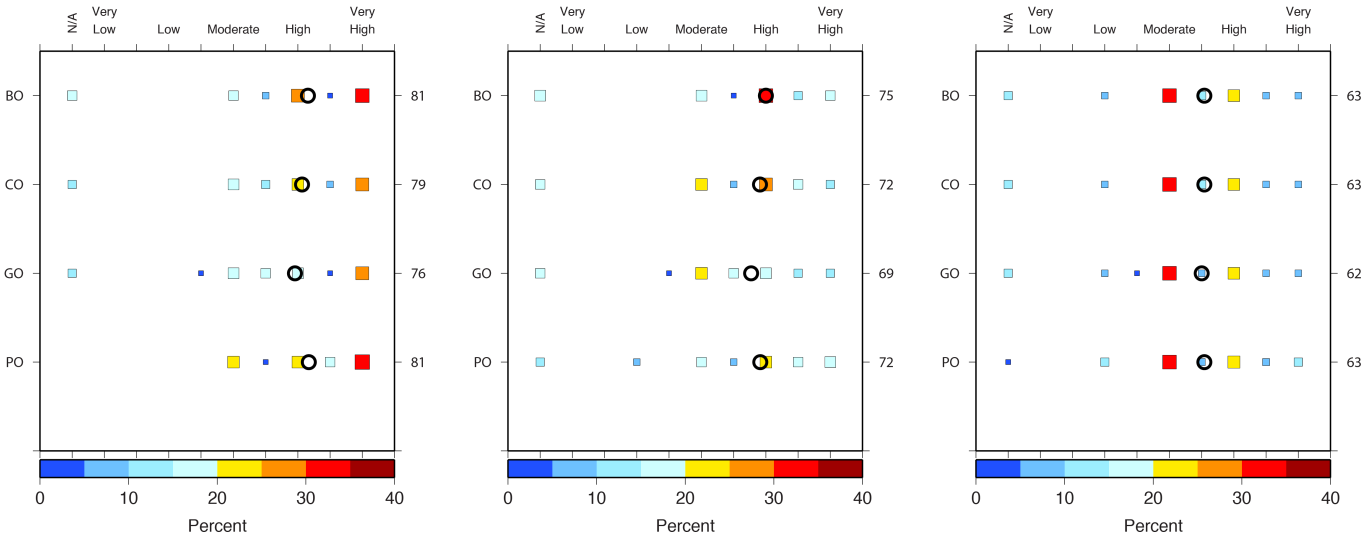

Figure 11. Comparison of survey responses regarding usefulness/appropriateness of the various core courses for PhD students (left), MS students (middle), and MO students (right). Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

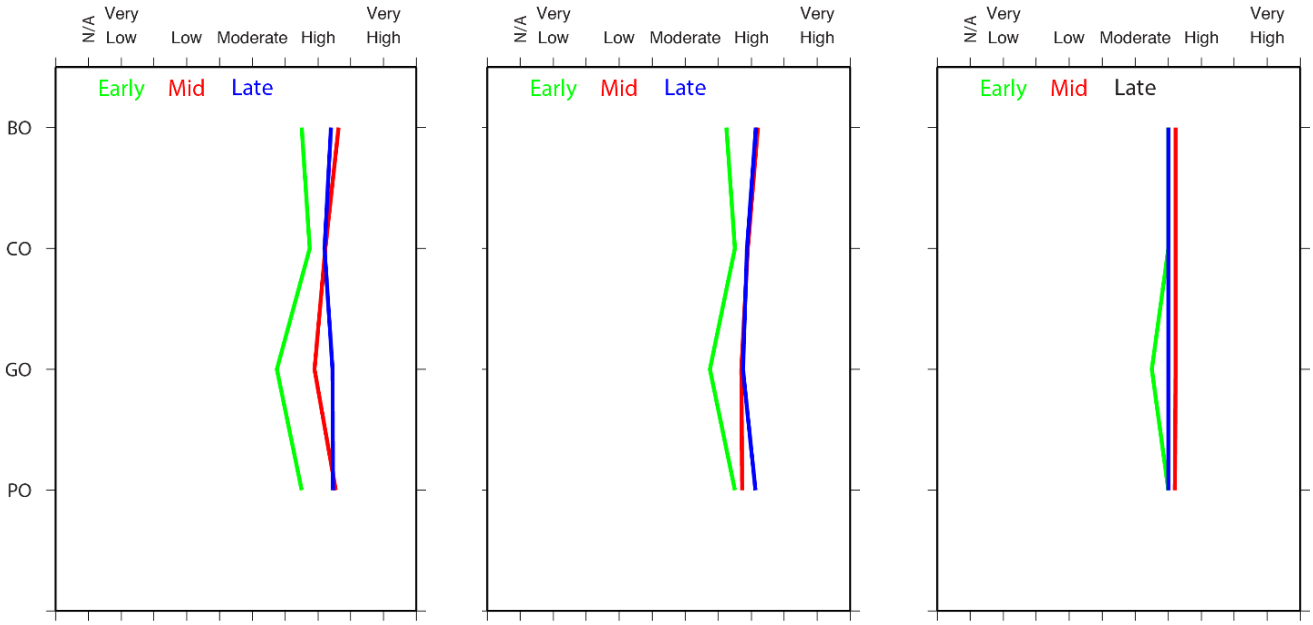

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Figure 12. Similar to Figure 11, but plotting mean ratings and disaggregated according to faculty career status.

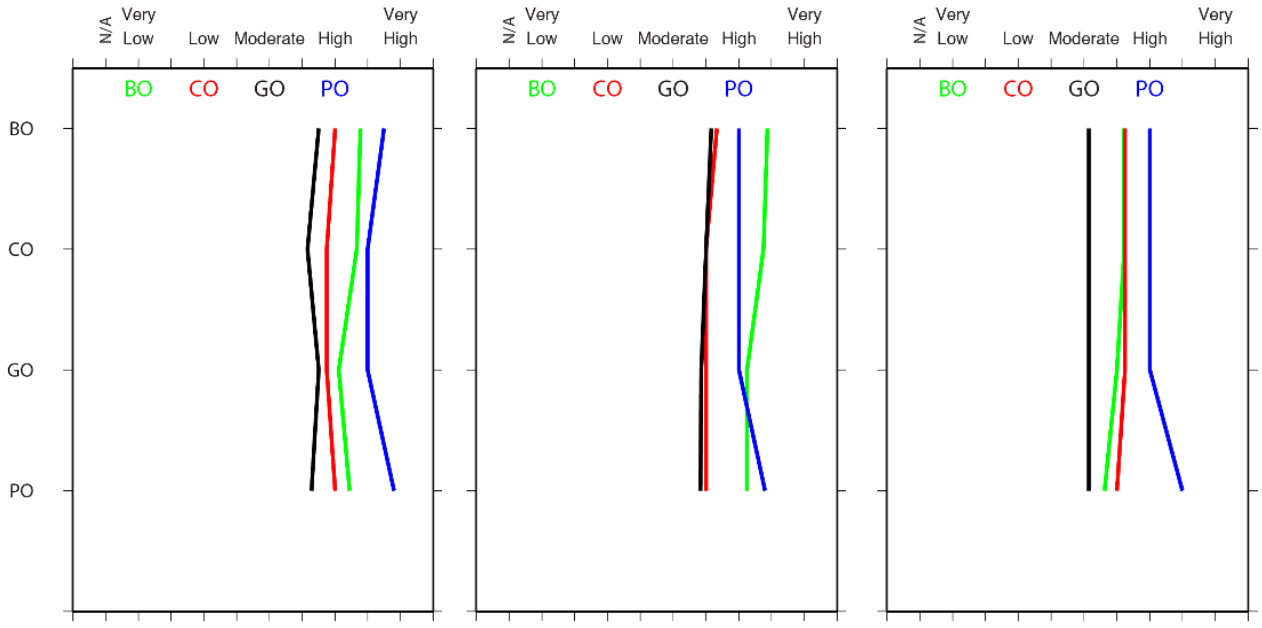

Figure 13. Similar to Figure 11, but plotting mean ratings and disaggregated according to curricular group.

Question:¶

- 7) Rate possible modifications to core courses.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to gauge the interest of faculty for modifications to the core courses. More succinctly, do they prefer the existing core course approach but adjust the amount of interdisciplinary content or do they want to replace some portion of the core courses with an introductory/ overview course. We provide a number of options ranging from "Hired prior to completing my degree" to "I have not found employment." Other options included "Planned leave," "Volunteer work," and "Started my own company."

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 14 & 15).

- Overall
  - ➢ preference for an increase of interdisciplinary aspects of core course to a ratio of about 75-80% core material and 20-25% interdisciplinary material (71 to 81 rating).
  - ➢ lower preference for introductory overview courses or two versions of each core course (36 to 44 rating)
  - ➢ abundance of comments do not seem to match the intended purpose of this question

- Trends
  - ➢ late career faculty least interested in introductory overview courses (12 to 26 rating) compared to early and mid career faculty (45 to 71 rating)
  - ➢ PO faculty are least interested in introductory overview courses (6 rating) compared to other curricular groups (29 to 87 rating)
  - ➢

¶

Comments¶

Numerous comments about a two-semester course replacing 3-4 core courses.
Concerns about "butts in seats" if core courses are not required.
More tightly coordinating the curricula could help a lot.

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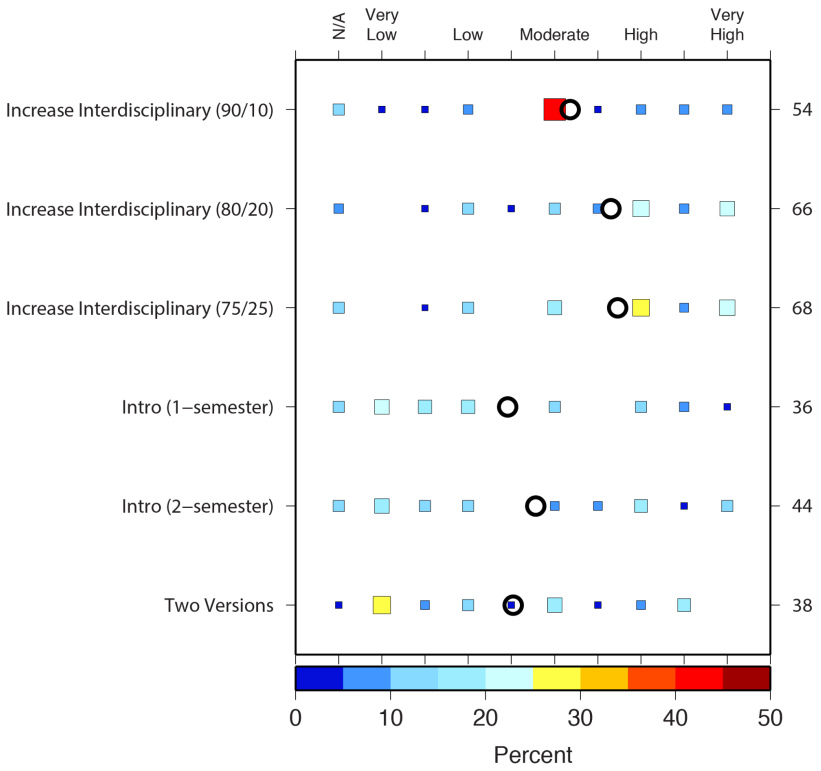


Figure 14. Survey responses regarding possible modifications to the core courses. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

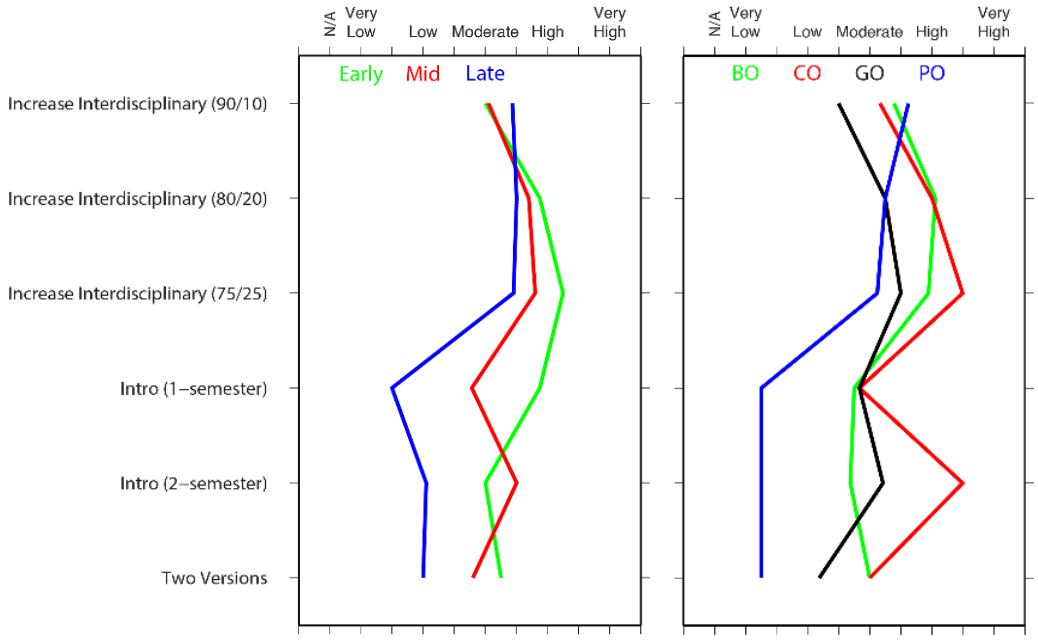


Figure 15. Similar to Figure 14, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 8) Rate your preference for a core course teaching model.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to gauge the faculty's interest in different possible teaching scheduling scenarios for the core courses, since the various curricular groups have different approaches. ¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 16 & 17).

- Overall
  - ➢ highest ratings for the *status quo* of "keeping it flexible and up to the curricular group" (73 rating), but some preference for a "single instructor for a 3- to 5-year duration" (67 rating)

- Trends
  - ➢ no real strong trends for career status, but BO and CO are somewhat similar and GO and PO also are somewhat similar

¶

Comments¶

It needs to be flexible for each class but curricular group preference only goes so far though.

Rotations are important to keep the material fresh - the dean needs to approve long-term schedules laid out by the curricular groups and then enforce them.

The 3-5 year duration provides continuity while periodically providing new perspectives.

¶

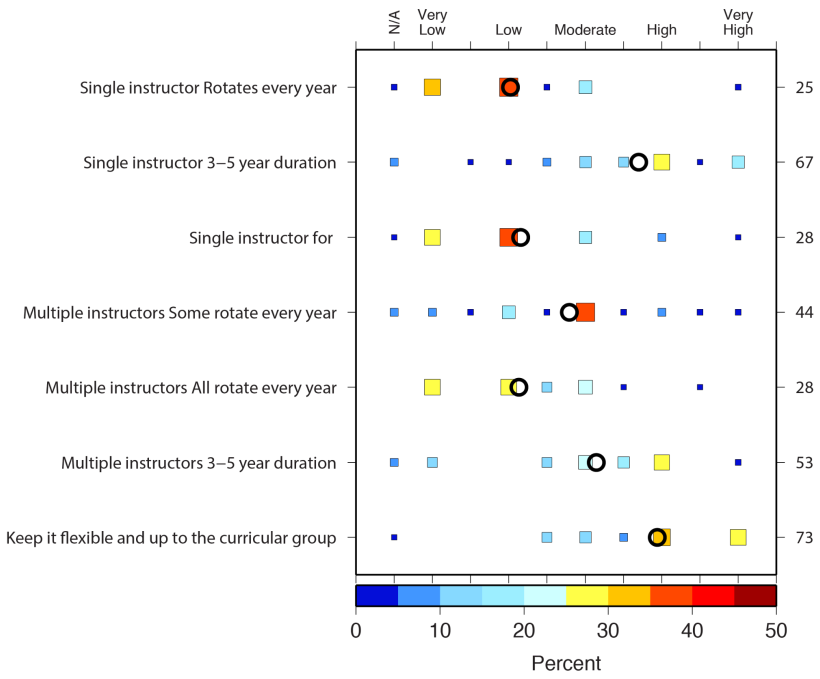


Figure 16. Survey responses regarding preference for core course teaching model. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

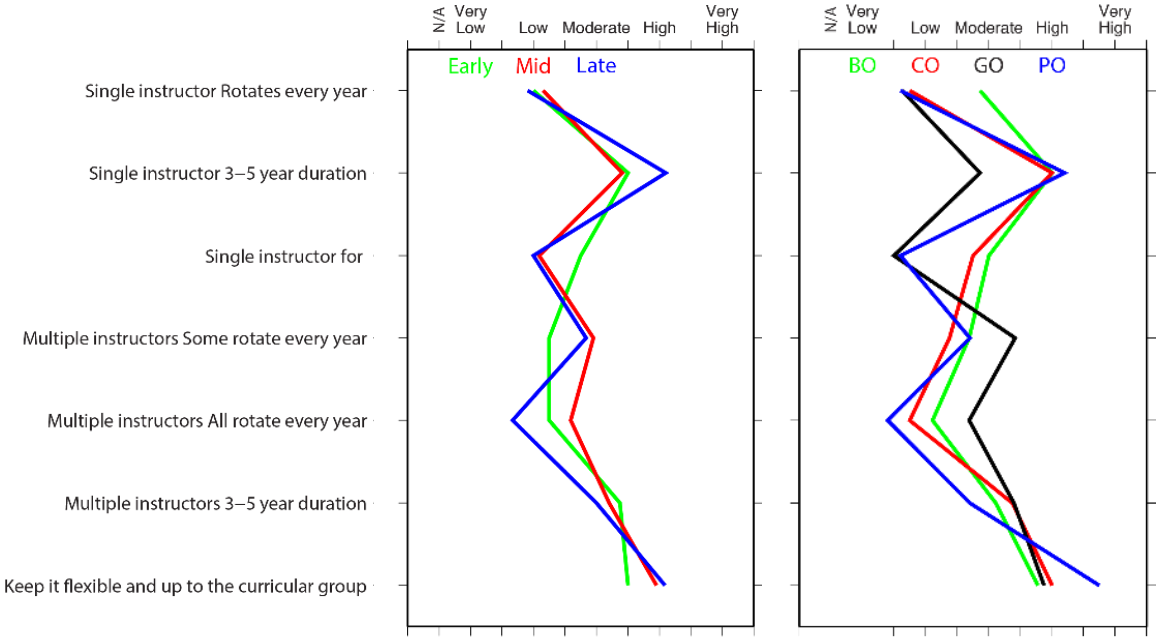


Figure 17. Similar to Figure 16, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Questions:¶

- 9) Select the semester you think each core course should be taught to benefit students the most.
- 10) Rate the importance of the order of core courses.

¶

Purpose/Goals→ ¶

The purpose of this question is to assess if there is a preferred order for teaching the core course, and if the order of courses is important.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 18 - 21).

- Overall
  - ➢ survey results indicate modest preference for the *status quo* for all core courses except PO, which suggests a strong preference (26 point departure) for the fall semester
  - ➢ survey also indicates a moderate-level of importance for the order of the core courses

- Trends
  - ➢ not much of a trend for the career status results
  - ➢ PO faculty strong proponents of *status quo*
  - ➢ PO and CO strongly prefer spring semester for Geological Oceanography
  - ➢ BO and GO strongly prefer fall semester for Geological Oceanography

¶

Comments¶

Bio in fall because it allows for field work. PO in fall because it is a foundation for other topics.

I think having geology upfront makes some sense... so people know the ocean basins, etc.

From a parochial standpoint I'd be surprised if each group didn't think theirs should be first.

Integration of content is most important.

If 4 core courses reduced to 2 coordinated overview core courses taken by all students order of topics can be better coordinated build off each other. ¶

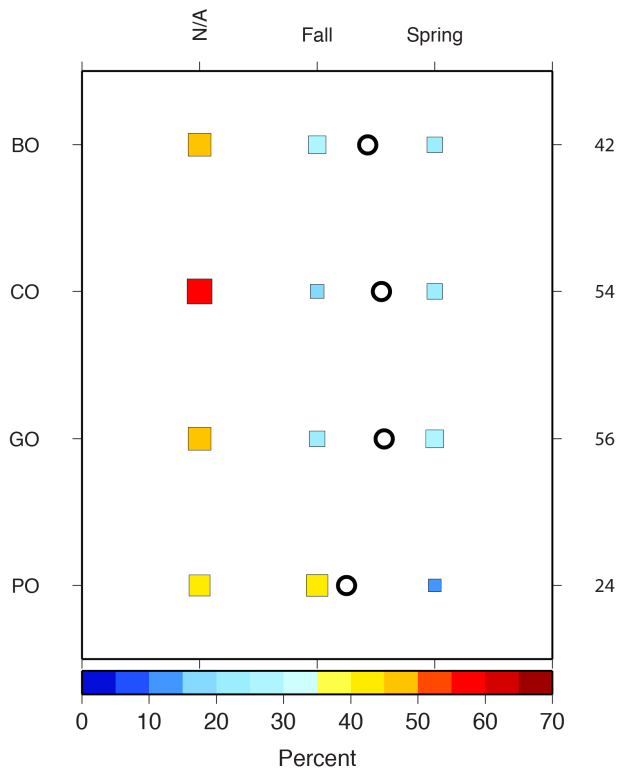


Figure 18. Survey responses regarding preference for the semester each core course should be taught. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. A scaled rating of 50 indicates no preference, while a rating less than 50 suggests a fall semester preference and a rating greater than 50 suggest a spring semester preference. The larger the departure from 50 indicates a greater preference.

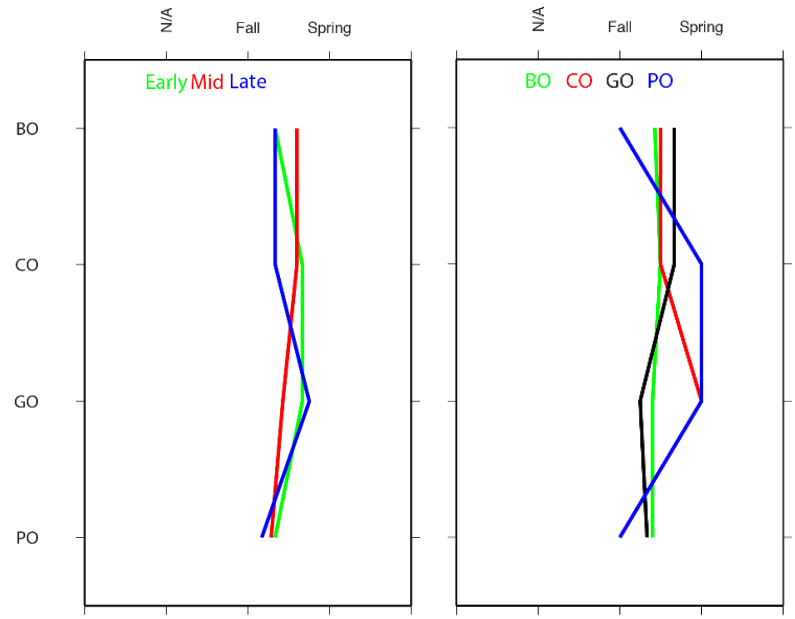


Figure 19. Similar to Figure 18, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

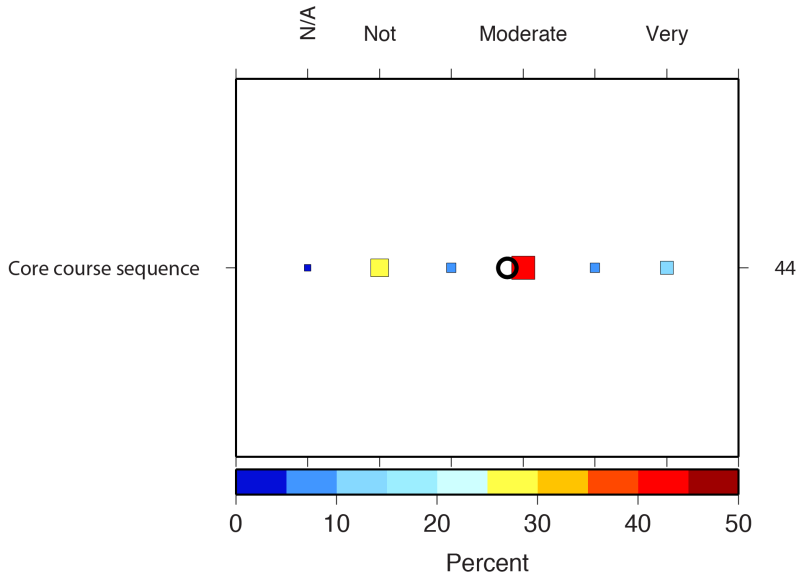


Figure 20. Survey responses regarding the relative importance of the order of each core course. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

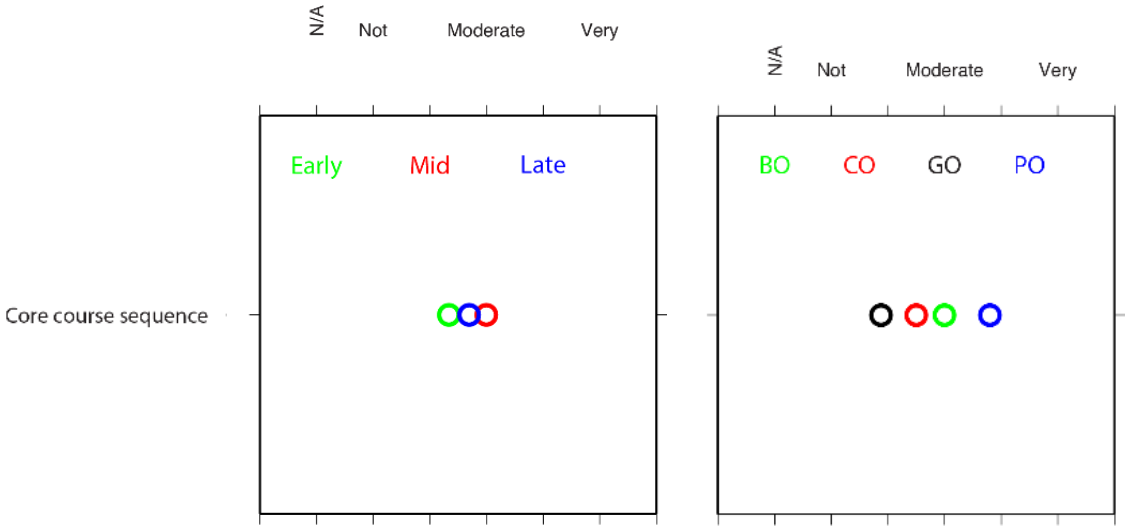


Figure 21. Similar to Figure 20, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶
- 11) What do you feel is working well and/or what can be improved in the core courses?¶

¶
Purpose/Goals→ ¶
The purpose of this question is to collect open-ended comments/suggestions from faculty about what aspects of the core course are working well and what needs improvement.
¶
Observations¶
- Overall
  - ➢ more suggestions for "Needs Improvement" than "Working Well"

- Trends
  - ➢ concerns about equitability and appropriateness for all degree paths
  - ➢ more interdisciplinary integration, shift the balance of content vs skills

¶
Comments¶
Working Well
- Bio: field component is great. Clearly students really like this course and learn well from the style.
- Core courses are thoughtful and well designed. Instructors are putting great effort into delivering needed content. Students receive a broad view of major topics in oceanography.
- We still provide an intro to oceanography that is deep and broad.
- The PO core curriculum serves mostly well the needs of our students.

Suggested Improvements
- The PO and Chem core courses for Bio students seems to be a challenge for everyone. I like the lab components.
- As a biologist I think that material in the PO course could be made more applicable to the non- specialist.
- It has long been thought that non-PO students in 501 learn how to get through it without learning key aspects of PO.
- The mix of MO MS and PhD students can be challenging because they start the semester with different knowledge bases.
- I think we are too focused on content at the expense of skill development for students in the first year and this could be remedied by project-based courses that teach the main content by addressing big interdisciplinary problems.
- We need to retool our curriculum to meet the needs of the different cohorts of students.
- Finding a way to enforce prerequisites.
- Greater connection between the course material - interdisciplinary integration. Bring in more "tools" based opportunities.
- Core requirement should be equitable and appropriate for all categories of GSO students to take together.
- The mix of MO MS and PhD students can be challenging because they start the semester with different knowledge bases.

4.2 Electives¶

Question:¶

- 12) What is the general scope of the GSO electives you teach?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to identify the relative balance between concepts and skills taught in GSO elective courses.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 22 & 23).

- Overall
  - ➢ elective courses generally biased toward concepts (55 to 58 rating) relative to skills (23 to 35 rating) with the highest rating for courses with an equal mix of concepts and skills (64 rating)

- Trends
  - ➢ similar patterns for mid and later career faculty with highest rating for equal mix, while early career faculty lean more toward concepts over skills
  - ➢ roughly similar patterns for curricular groups with somewhat higher rating for concepts for CO faculty

¶

Comments¶

Students increasingly want to learn skills.

A couple of comments about not teaching one yet or going beyond teaching expectation level of 1.5 courses per year.

¶

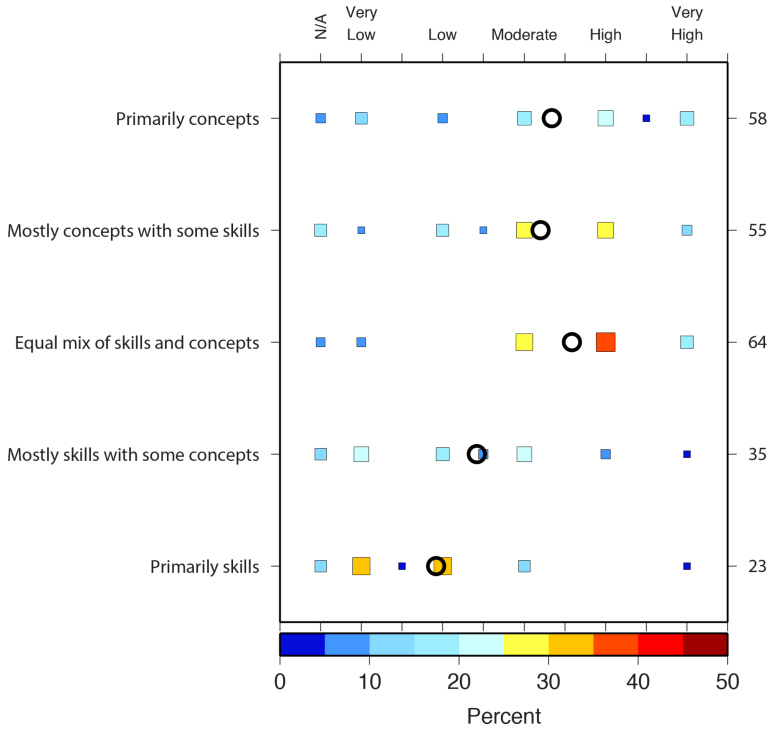


Figure 22. Survey responses regarding the relative importance of the order of each core course. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

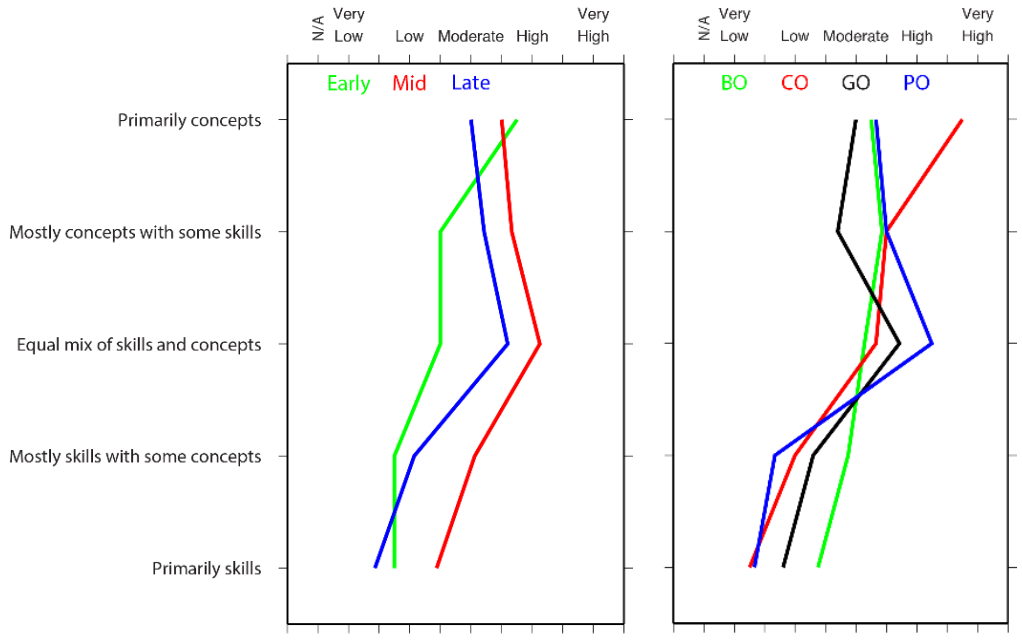


Figure 23. Similar to Figure 22, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 13) Rate your preference for deciding what types of electives course should be taught and when.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to determine how faculty decide what type of elective should be taught and when.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 24 & 25).

- Overall
  - ➢ numerous approaches are involved with high rankings for "discussed with curricular group" (73 rating) "based on student population needs" (72 rating), and "discussed between curricular groups" (68 rating).
  - ➢ lowest ratings for "up to individual faculty members (52 rating) and "input from faculty committee" (56 rating).

- Trends
  - ➢ very similar patterns for all career status
  - ➢ BO and GO curricular groups report similar patterns, while CO faculty seek more broad input and PO faculty seek less input outside of their curricular group

¶

Comments¶

I don't find all curricular groups functional and there is a need to look at the curriculum as a whole.

Having a structured curriculum helps recruitment and planning for students and faculty.

Students and advisers would benefit from a set schedule of courses. I think this could improve our time to graduate rate.

It would be useful to edit the elective courses and let everyone have a stab at teaching an elective course if they'd like.

¶

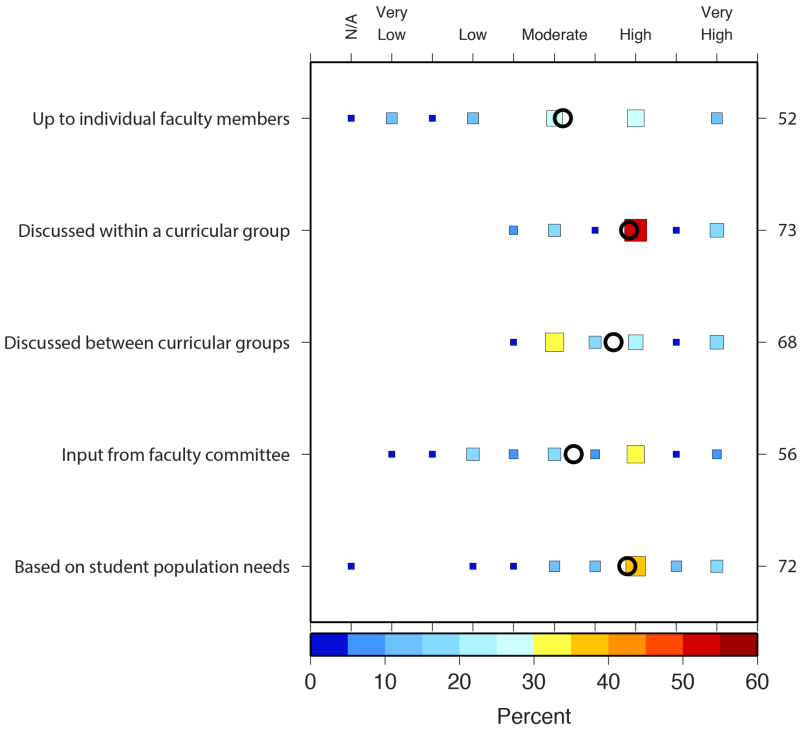


Figure 24. Survey responses regarding the preference for deciding what types of electives course should be taught and when. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

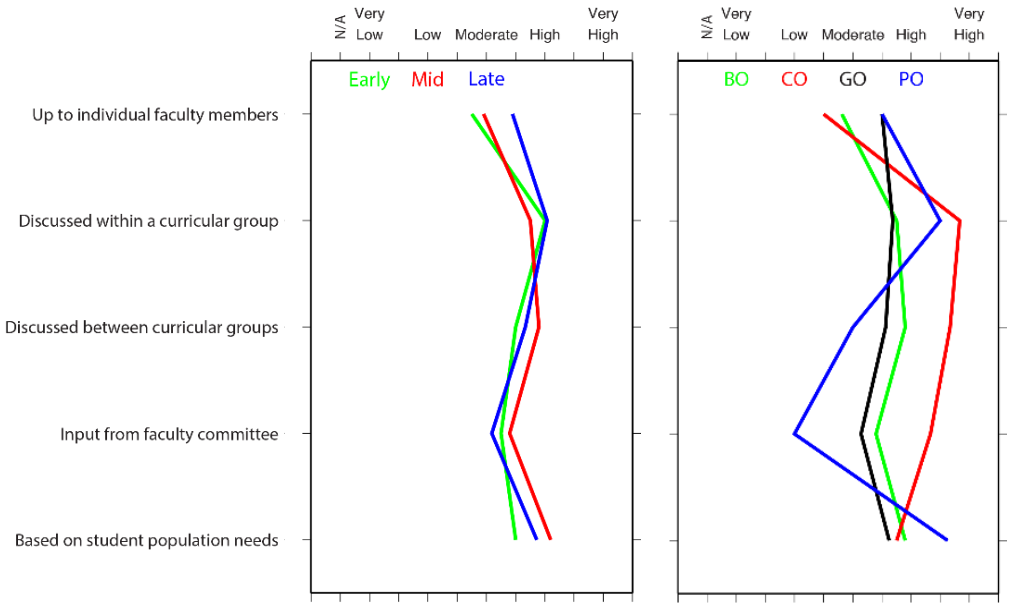


Figure 25. Similar to Figure 24, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Questions:¶

- 14) Which course formats are you likely to use in your GSO elective?
- 15) Reason for using a particular course format for GSO elective?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to identify the types of formats faculty choose to teach their electives and what sort of reasoning goes into determining the format of the course.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 26 - 29).

- Overall
  - ➢ slight emphasis on "seminar/paper reading" (62 rating) and "primarily lecture (59 rating) formats with "field based" course having a much lower frequency (34 rating)
  - ➢ top two reasons for choosing a format are "benefit of the student' (83 rating) and "best format for topic" (80 rating) with "ease of delivery" (54 rating) rated lower

- Trends
  - ➢ similar patterns of the course formats for the various career stages
  - ➢ PO faculty are the most lecture-based and the least field based
  - ➢ CO faculty have courses with highest frequencies for all categories except primarily lecture and seminar/paper reading
  - ➢ similar patterns of reasons for course format for all career stages
  - ➢ PO and CO faculty have similar patterns of reason for course format
  - ➢ BO and GO faculty have somewhat similar patterns, but with a slightly elevated preference for ease of delivery than the other two faculty groups

¶

Comments¶

Limited comments provided. ¶

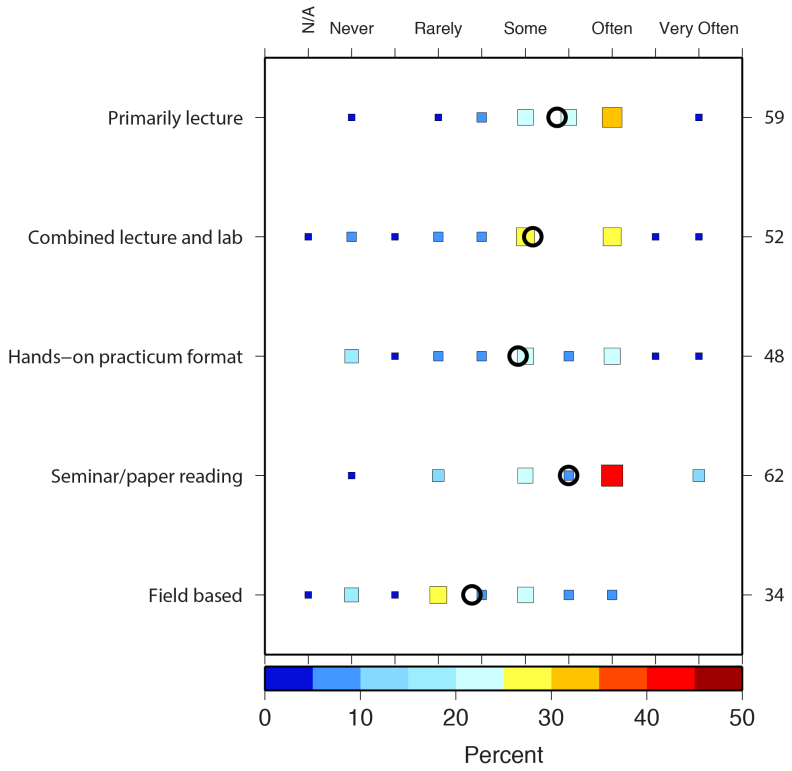


Figure 26. Survey responses regarding the likely course formats used in a GSO elective. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

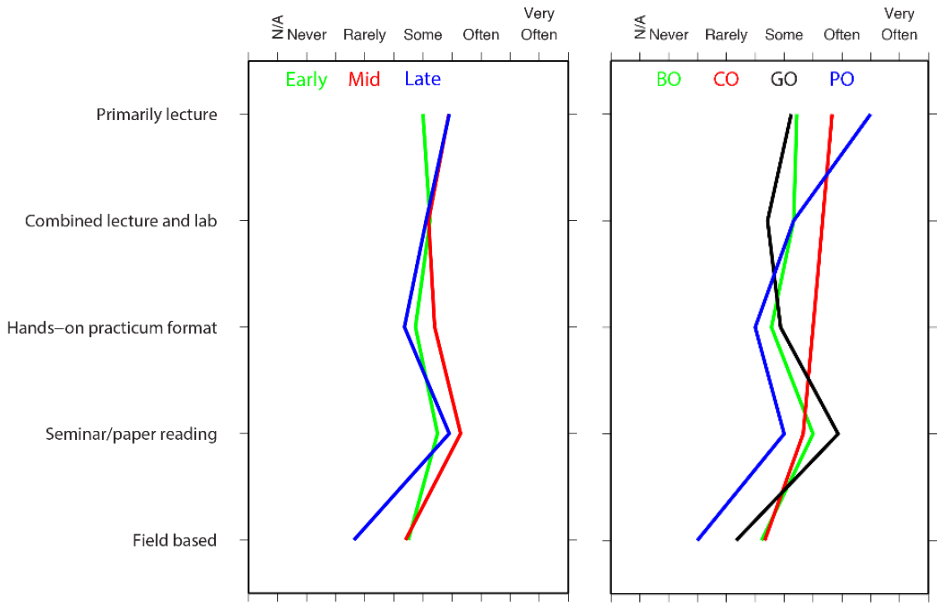


Figure 27. Similar to Figure 26, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

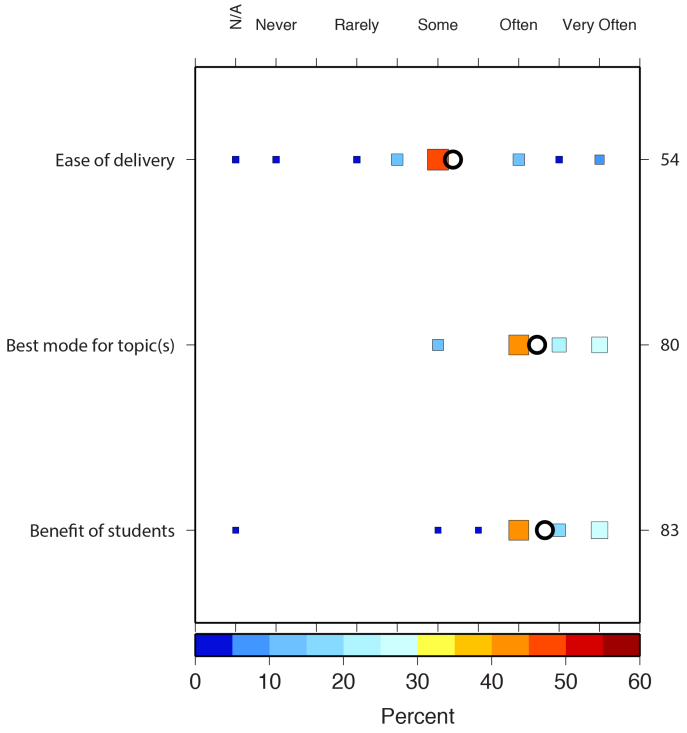


Figure 28. Survey responses regarding the reason for using a particular course format for GSO elective. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

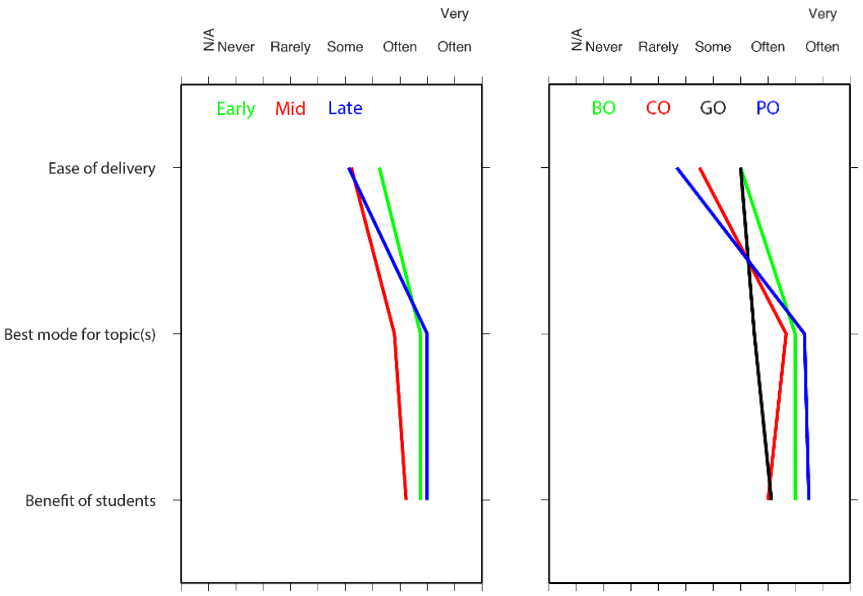


Figure 29. Similar to Figure 28, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 16) When is the GSO elective announced/available to the students?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to identify when faculty announce the availability of an elective.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 30 & 31).

- Overall
  - ➢ faculty report their electives are often and very often regularly scheduled in the course catalog, while some course are announced the semester before or a month before the course is offered

- Trends
  - ➢ mid and late career faculty have a similar pattern, while the early career stage faculty pattern is different and may be the result of not having had the chance to teach an elective
  - ➢ GO and PO faculty have similar patterns of course announcement with BO faculty typically announcing their elective the semester before and the CO faculty announcing their electives a month before

¶

Comments¶

It would be better if there were a regular predictable schedule of elective course offerings. Students want to know which classes they can take to fill out their POS and they feel more secure in their progress when they know which classes they are going to be able to take.

Having a coordinated plan at least a year in advance is important for both faculty and students for planning and delivering the best assortment of options.

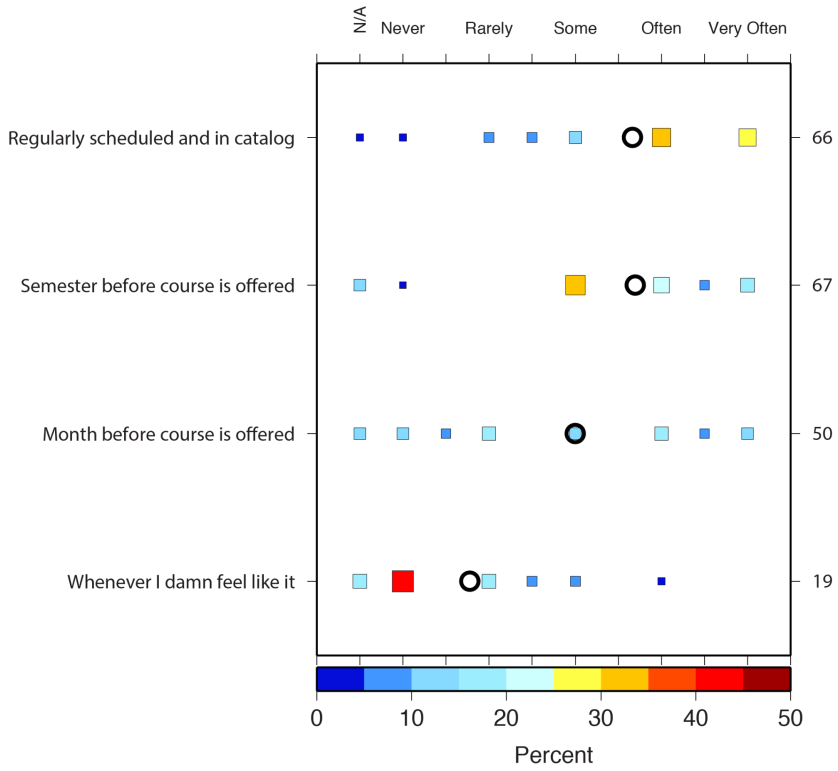


Figure 30. Survey responses regarding the timing when the GSO elective is announced. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

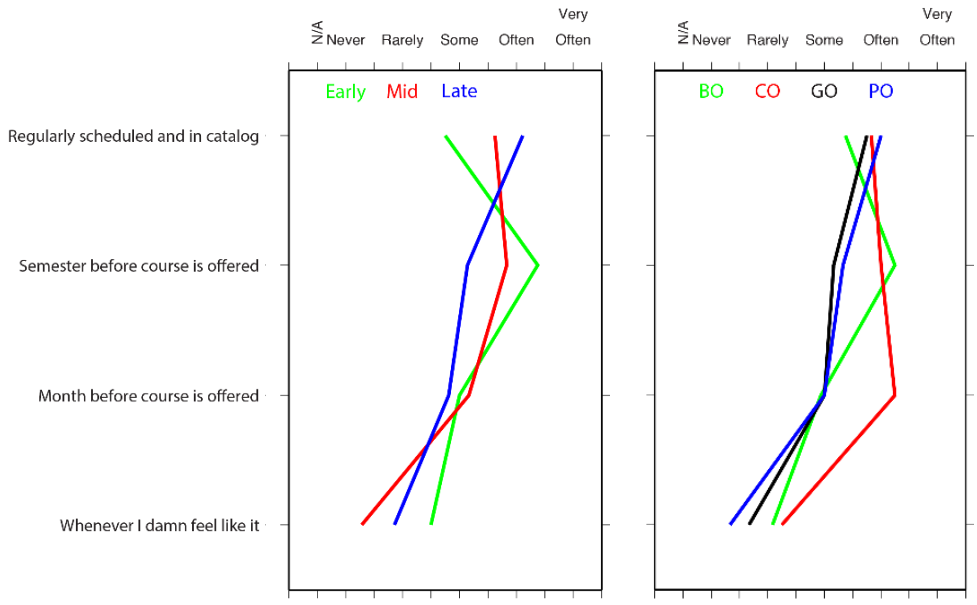


Figure 31. Similar to Figure 30, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 17) Who is your primary target audience when you teach GSO electives?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to identify the primary target audience of GSO electives.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 32 & 33).

- Overall
  - ➢ highest frequencies reported for "any degree range" (77 rating) and for "students with interdisciplinary interests" (75 rating)
  - ➢ slightly elevated frequencies for "primarily my students" (65 rating) and for "students within my curricular group" (61 rating)
  - ➢ lowest reported rating is for targeting "primarily MO students" (25 rating)

- Trends
  - ➢ similar patterns for all career stages and curricular groups

¶

Comments¶

Few comments, but some indicated they have not taught a GSO elective yet

Including students from other URI departments

¶

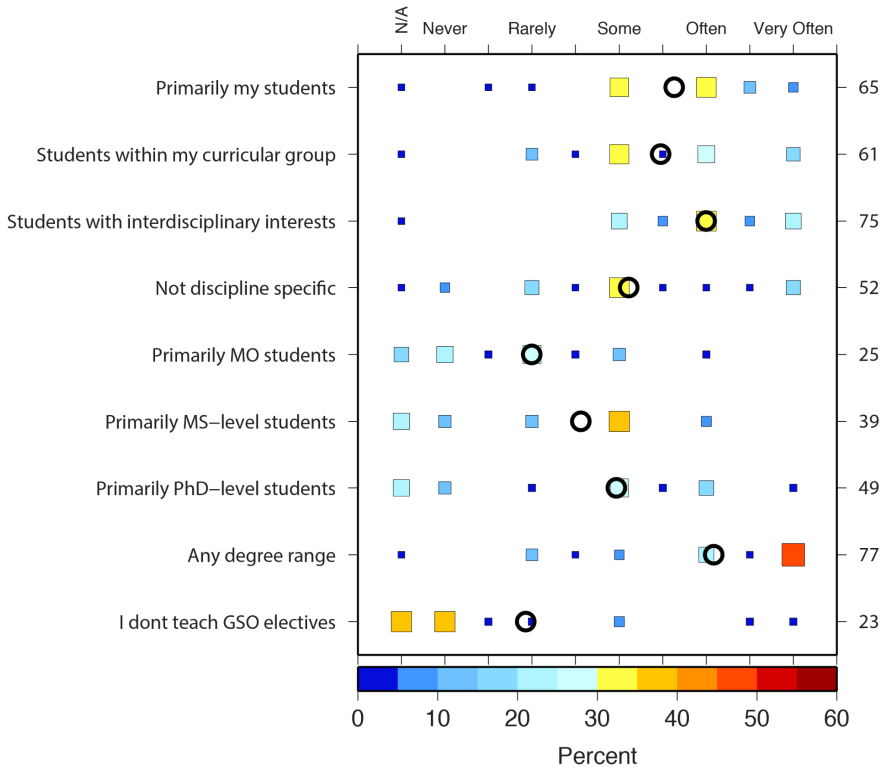


Figure 32. Survey responses regarding the primary target audience for GSO electives. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circles and the numerical value displayed to the right of the plot.

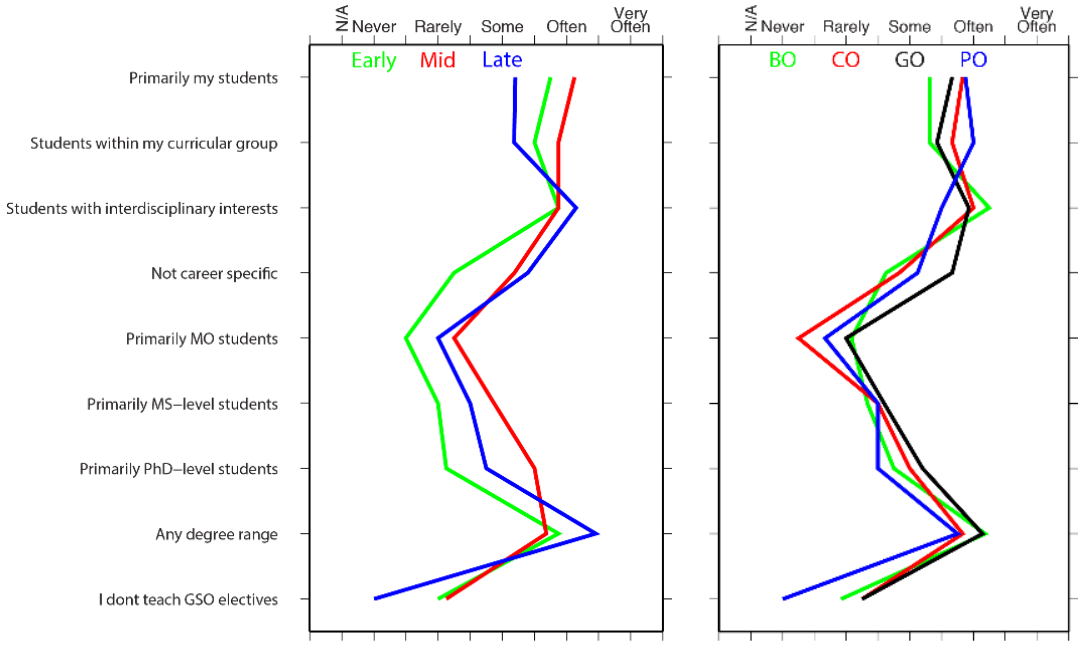


Figure 33. Similar to Figure 32, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 18) How often do you teach GSO elective courses? (select all that apply)¶

¶

Purpose/Goals→ ¶

The purpose of this question is to determine how frequently the faculty teach GSO elective courses.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 34).

- Overall
  - ➢ most faculty indicated "once a year" (12-13), followed by "every other year" (9), and "depends on student population needs" (6)
  - ➢ only 2 faculty selected "as needed by curricular group" and "too busy teaching undergraduates"

- Trends
  - ➢ most mid-career faculty report teaching an elective "once a year" (8), and the frequency appears to decrease for late-career faculty with predominant responses of "every other year" (7) and "depends on student population needs (5)
  - ➢ BO Faculty typically teach an elective every other year (5), while GO faculty typically teach an elective "once a year" (5)
  - ➢ no significant patterns for CO or PO faculty, but neither report they are "too busy teaching undergraduates"

Comments¶

There has not been an opportunity for me to teach an elective course.
Lack of coordination...critical gaps.
I go beyond my teaching expectation of 1.5 courses regularly in order to offer electives. This is because my teaching roster currently includes half of a core class and a sole-taught undergrad class.
Too busy with administrative duties

¶

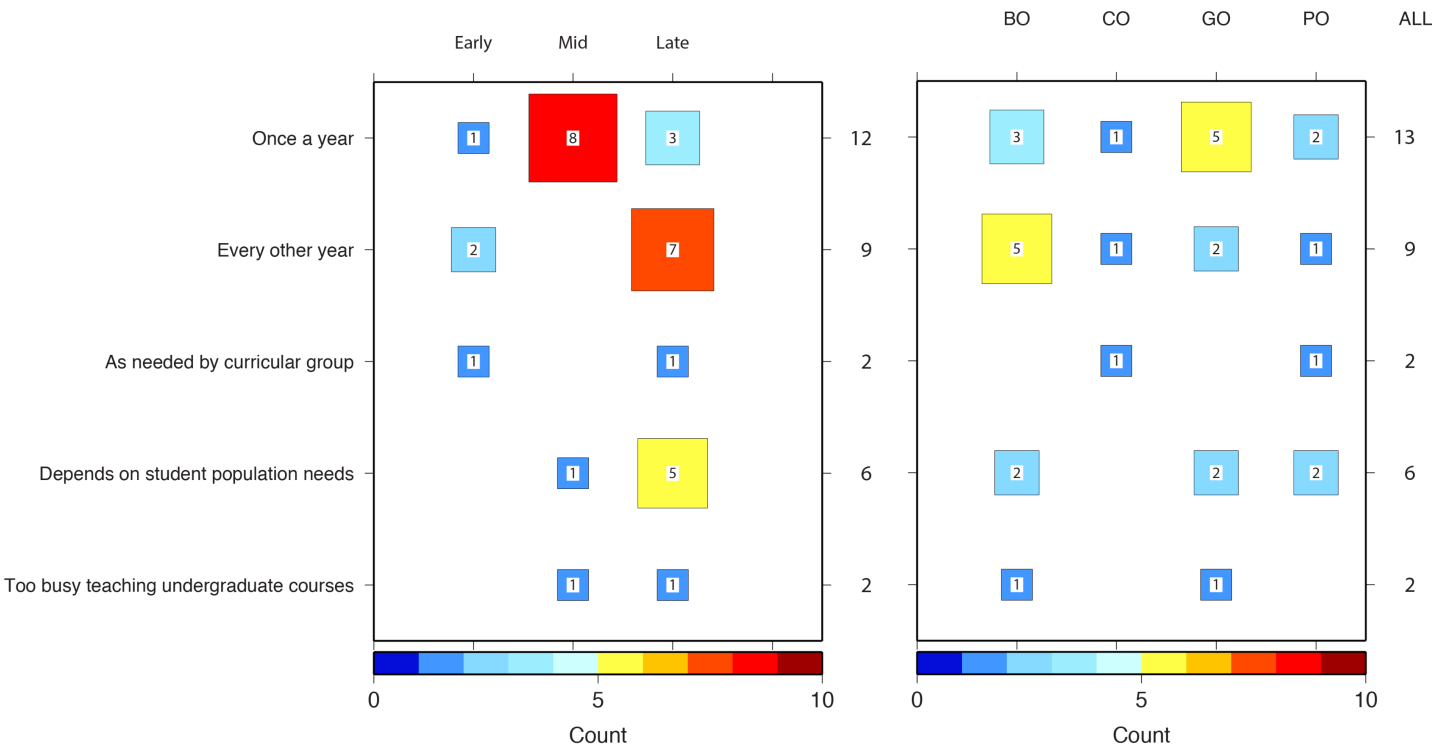


Figure 34. Survey responses regarding the frequency of teaching GSO electives, according to career status (left) and curricular group (right). Response distribution and frequency are illustrated as heat maps with the color, inset number, and size of square symbols corresponding to the frequency of responses within each row/core course. The number of responses for each row displayed to the right of the plot.

Question:¶

- 19) What do you feel is working well and/or what can be improved with the GSO elective courses?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to collect open-ended comments/suggestions from faculty about what aspects of GSO electives are working well and what needs improvement.

¶

Observations¶

Below is a list of preliminary observations based on open-ended comments.

- Overall
  - ➢ more suggestions for "Needs Improvement" than "Working Well"

- Trends
  - ➢ numerous responses focused on the need to have more consistency in what is being taught and when so that students know what their options are in the future to plan their programs of study.

Comments¶ ¶

Working Well

Having a regular supply of MO students helps to even out the waxing and waning of MS and PhD students.

Professors teach what they are excited about!

Suggested Improvements

Need to be more consistent in offering for sake of student planning.

The whole catalog should be carefully evaluated and re-written.

We need more reliable course offerings at the graduate level or we need to decide that we can't afford to offer these because of our UG teaching obligations then we need to remove them from the catalog.

The majority of our curriculum could be taught in any land locked state. When do we take on-water skills based learning seriously?

We should increase the variety of elective courses offered.

4.3 Student Seminar¶

Question:¶

- 20) Rate the importance of student seminar for GSO student development.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to determine the faculty's perspective of the importance of student seminar.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 35 & 36).

- Overall
  - ➢ overall rating of high to very high (82 rating)

- Trends
  - ➢ mid- and late-career faculty rate student seminar importance higher than early-career faculty
  - ➢ CO and PO faculty rate student seminar importance slightly higher than GO and BO faculty

¶

Comments¶

Student presentations are of mixed quality. 4pt font text, no relation to broader audience. The "course" needs to also teach how to deliver a talk.

Ideally there should be structured instruction on oral presentation best practices, a debrief mid semester, and a recap at the end of the year. The value of the current feedback should be evaluated with primarily student involvement.

¶

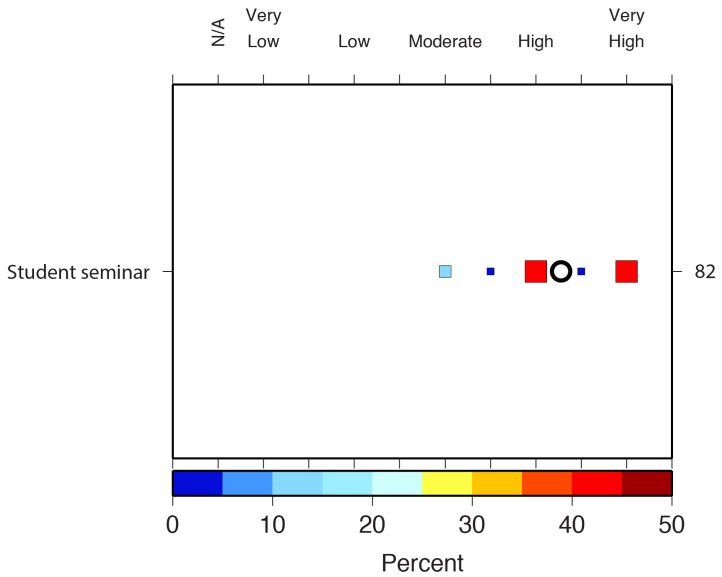


Figure 35. Survey responses regarding the relative importance of student seminar for student development. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

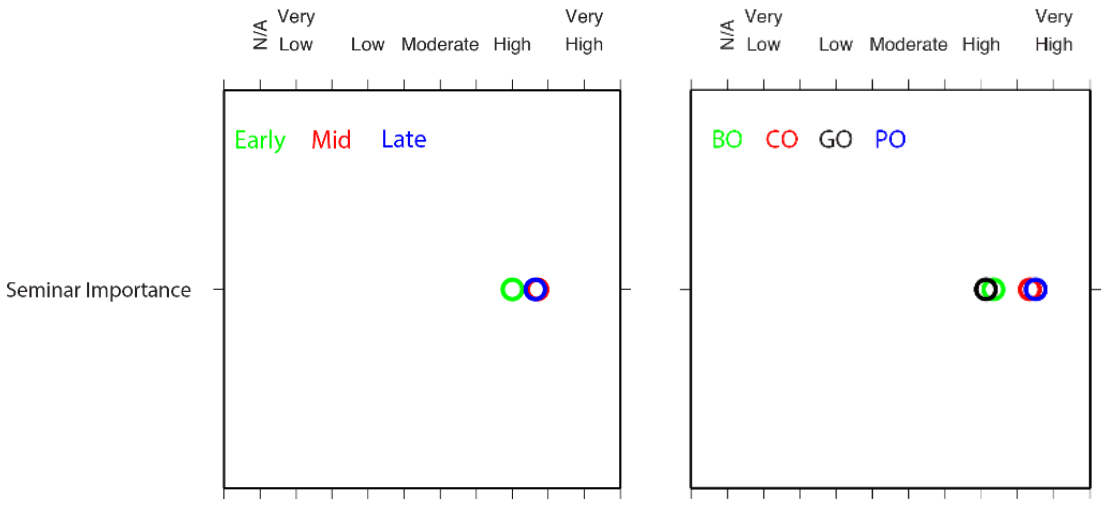


Figure 36. Similar to Figure 35, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 21) How much effort/guidance do you provide to your students for their student seminar presentations¶

¶

Purpose/Goals→ ¶

The purpose of this question is to assess the amount of assistance or guidance faculty give to their students in preparation of their student seminar.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 37 & 38).

- Overall
  - ➢ most faculty provide significant assistance (70 rating)

- Trends
  - ➢ all career stages provide about the same amount of guidance
  - ➢ CO faculty provide slightly less guidance than the other curricular groups

¶

Comments¶

My students give practice talks for my group and we give feedback to be incorporated before the student presents in seminar.

Less than I used to because they don't ask for help.

Depends on the student.

¶

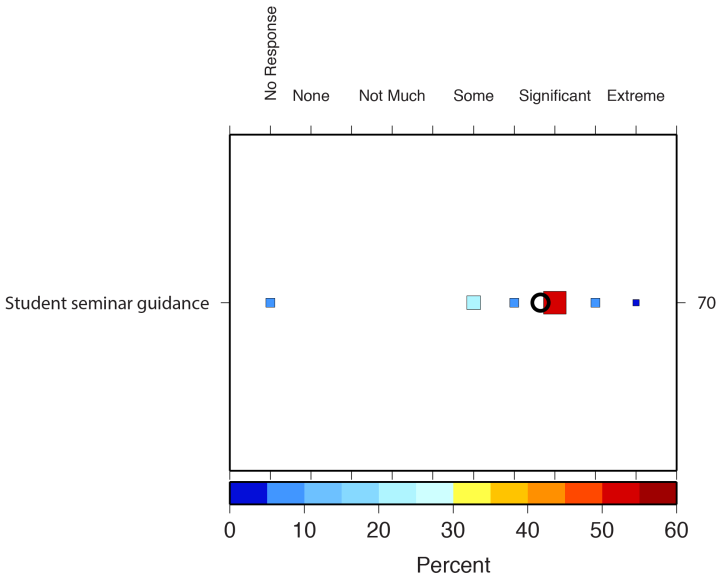


Figure 37. Survey responses regarding the amount of effort/guidance faculty provide to their students for student seminar presentations. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

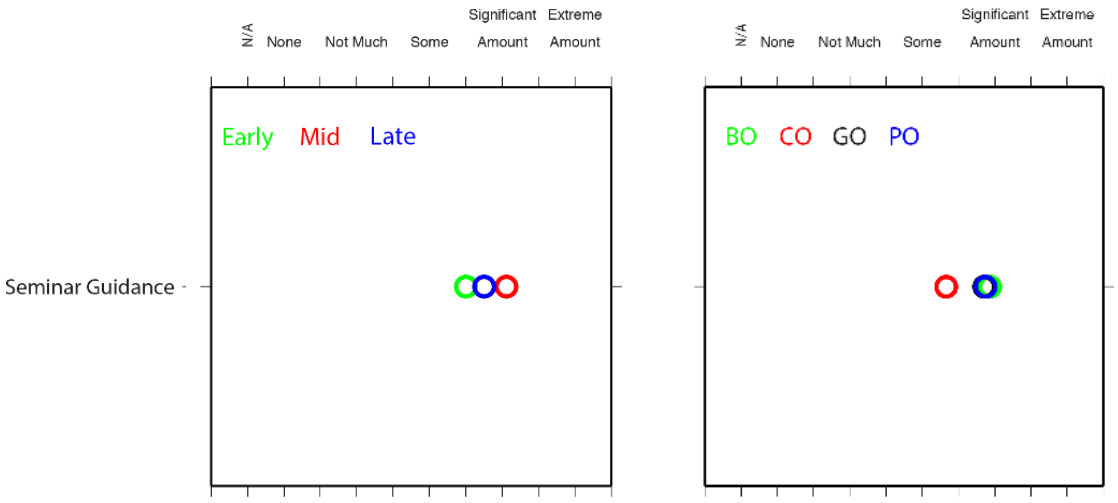


Figure 38. Similar to Figure 37, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 22) Rate the various possible modifications to student seminar.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to get input from faculty for some possible modifications to student seminar.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 39 & 40).

- Overall
  - ➢ most faculty feel that no change is needed (72 rating)
  - ➢ there is some support for modifications like "post-seminar beverages/snacks to discuss talks" (75 rating), "prioritize questions from students" (65 rating), and possibly "faculty provide exemplar seminars" (59 rating).

- Trends
  - ➢ very similar patterns for all career stages and curricular groups

¶

Comments¶

I think these events need a significant focus on community building.

I think the student seminar is working well as designed. Perhaps the feedback mechanism can be streamlined and improved. Perhaps advisors should go over survey feedback with the student.

Many students speak to their curricular groups even though they are asked to address a general science audience.

Stick to the time limit these are said to be prep for professional talks at meetings.

I would say faculty also give seminars- maybe rotating in every 4 years or so.

Video the seminars and have each cohort (2-3 students who presented) watch back and critique.

¶

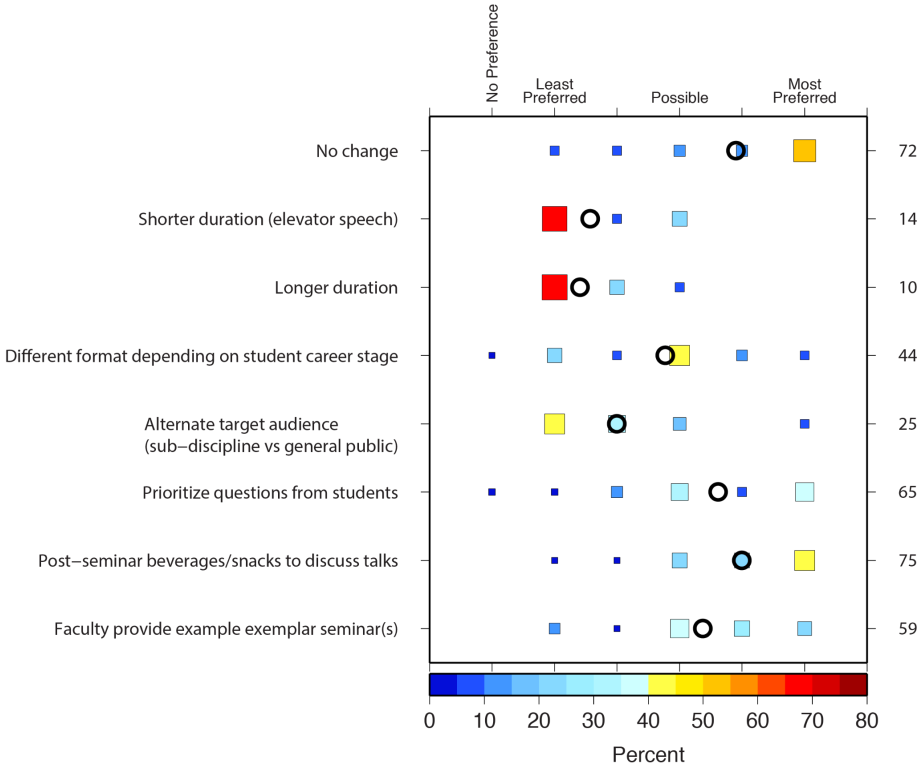


Figure 39. Survey responses regarding possible modifications to student seminar. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

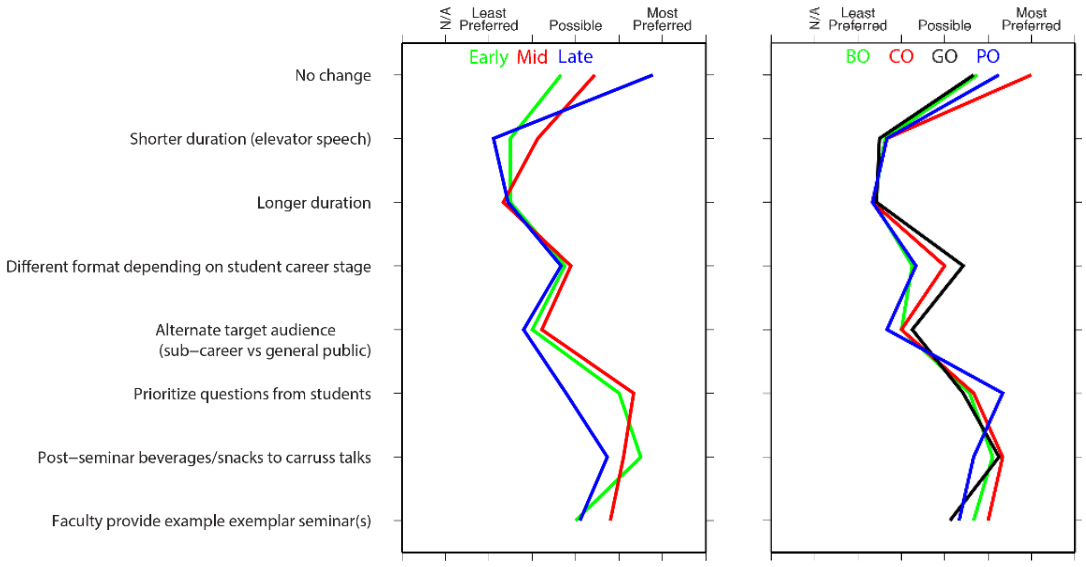


Figure 40. Similar to Figure 39, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 23) Which option best matches your student seminar attendance "Habit" ?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to identify the student seminar attendance "habits" of the faculty.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 41).

- Overall
  - ➢ most faculty select "attend all that I am able" (18) with some prioritizing "only attend students in curricular group" (6).
  - ➢ only one faculty member indicated that they rarely attend

- Trends
  - ➢ slight decrease in percentage of later career faculty attending student seminars
  - ➢ BO and CO faculty appear to be the most dedicated attendees of student seminar with only 12 of 13 responding faculty indicating they "attend all that I am able"
  - ➢ GO and PO faculty are about evenly split between "attend all that I am able" and "only attend students in curricular group"

¶

Comments¶

No comments provided. ¶

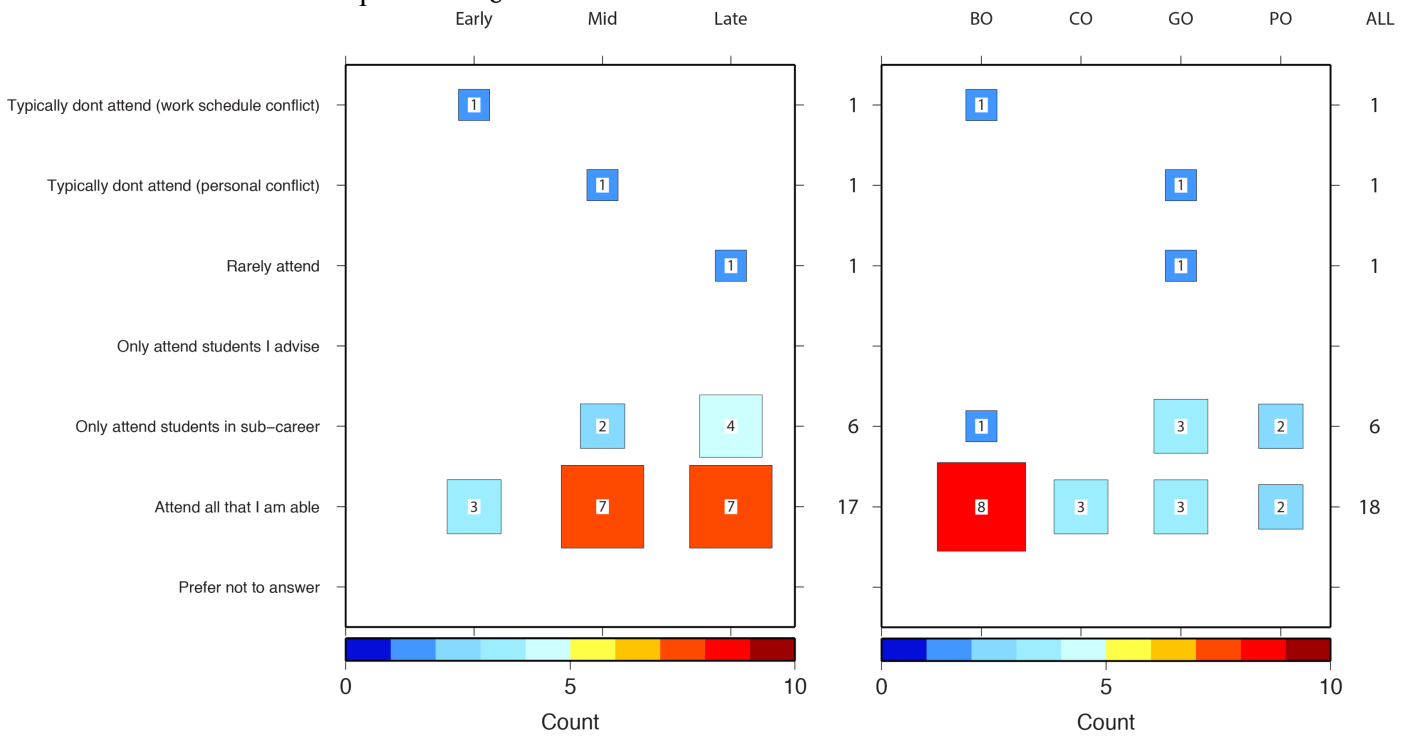


Figure 41. Survey responses regarding typical student seminar attendance "habit", according to career status (left) and curricular group (right). Response distribution and frequency are illustrated as heat maps with the color, inset number, and size of square symbols corresponding to the frequency of responses within each row/core course. The number of responses for each row displayed to the right of the plot.

Question:¶

- 24) What do you feel is working well and/or what can be improved with student seminar?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to collect open-ended comments/suggestions from faculty about what student seminar are working well and what needs improvement.

¶

Observations¶

Below is a list of preliminary observations based on provided comments.

- Overall
  - ➢ numerous suggestions about ways to provide students with oral communication and presentation training
  - ➢ several comments about providing better feedback to students and assessment mechanism

¶

Comments¶

Working Well

I think the present student seminar structure works pretty well.

Needs Improvement

Need to find a way to encourage more people to fill out the evaluations (myself included). I think students would benefit from more guidance on what makes a good talk. Perhaps have short workshops at the beginning of each semester (or year) to go over tips for making a good talk). Have meetings with students post talk to go over what worked and what could be improved upon (possibly using the survey feedback).

Structured instruction on oral communication to be integrated into the semester plan for your course. I think the students could get a lot more out of the experience with a few minor tweaks.

The kind of talk given in seminar unfortunately doesn't translate well to other venues like a professional meeting or a talk for the general public.

Increase faculty participation.

Honestly I fail at the digital feedback.

4.4 Cruise Requirement¶

Question:¶

- 25) Rate the importance of the cruise requirement for GSO student development.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to determine faculty's perspective for the importance of the cruise requirement.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 42 & 43).

- Overall
  - ➢ faculty responses indicate cruise requirement most frequently highly rated (67 rating) with responses ranging from low to very high

- Trends
  - ➢ early-career faculty rate the cruise requirement significantly lower than mid- and late-career faculty
  - ➢ no significant trend is observed for the various curricular groups

¶

Comments¶

I think the requirement to get into the field is valuable but there should be flexibility in what counts as a cruise.

A field course would be great and could change this requirement.

I think this is a great opportunity for students that is impactful. I think we need to be careful about access/ability concerns - not all possible students may be able to be at sea - for diversity perspectives this should be considered.

Cruises are a great experience. Some field experience is most important -- I think small boat/ diving work is also valuable.

Many incoming students are still drawn to fieldwork.

Suggest this be changed into a field practicum course, experiences and utility vary too widely.

Ships are undeniably a cool experience. But their nature is more big picture. Small boat oceanography is more beneficial to students because it is more hands-on and better for skill building. No GSO student should graduate without a small-boat oceanographic experience.

Some students benefit A LOT; some suffer. A second option is needed.

¶

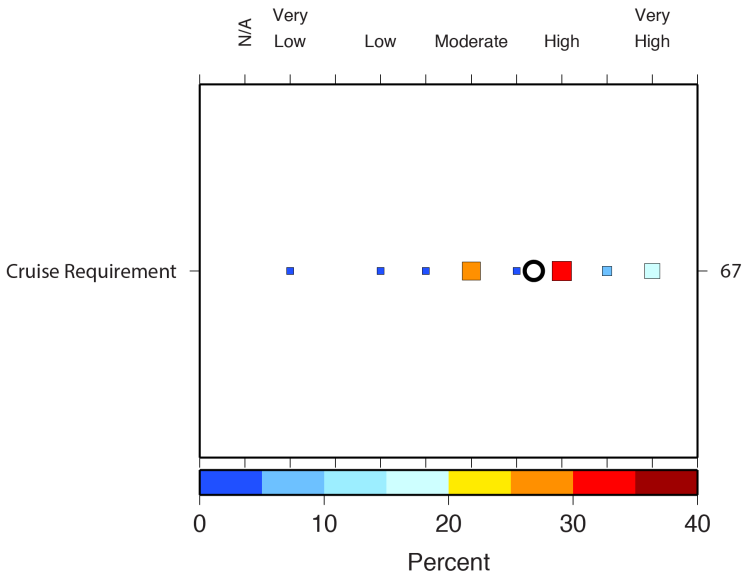


Figure 42. Survey responses regarding the importance of the cruise requirement for GSO student development. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

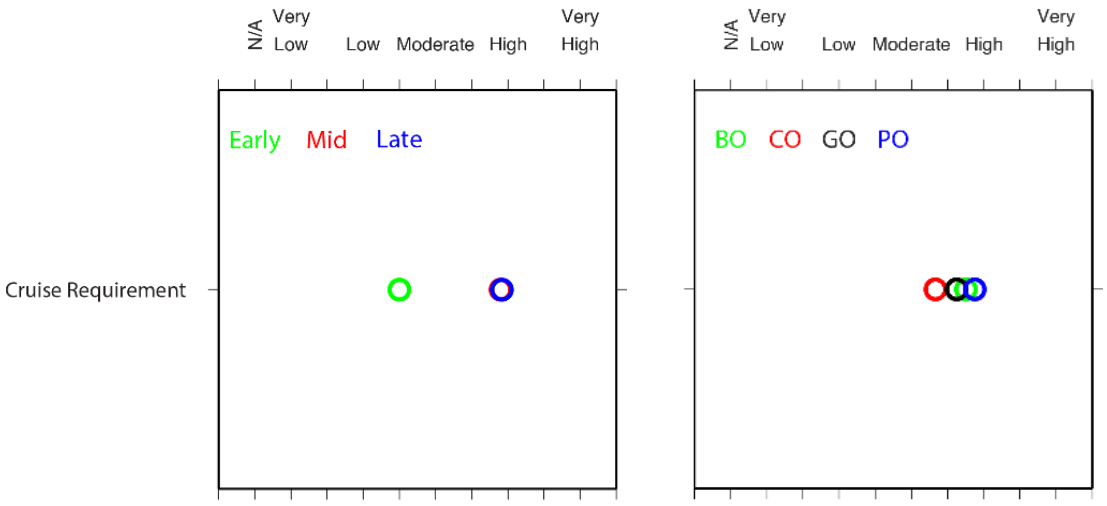


Figure 43. Similar to Figure 42, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 26) Rate potential cruise requirement modifications.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to receive feedback from the faculty about various proposed modifications to the cruise requirement.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 44 & 45).

- Overall
  - ➢ most preferred response (71 rating) is to require cruise requirements only for MS and PhD students, which is the present case
  - ➢ also possible interest for "allow multiple coastal day cruise" (60 rating), "allow alternate approved filed programs" (51 rating), and have requirement for "all GSO degrees" (51 rating)

- Trends
  - ➢ plenty of variability amongst various career stages and curricular groups, but no real obvious trends

¶

Comments¶

I think we need to be mindful of student limitations to participation (physical ability, personal life circumstance (caring for children/parents, etc...).

I would keep the cruise requirement as long as there are cruise opportunities. Most of the whinging seems to come from people who haven't been to sea for an extended cruise.

Some field experience is critical.

Why field? What about a coding course if students do not have field requirement.

Needs discussion. There is a benefit of going to sea, but do not think this is more important than a real on-water coastal experience where the student is the PI of the data gathering (science method experience).

Some flexibility in the cruise requirement would benefit students - strict adherence to the 5-day rule could hurt some students. ¶

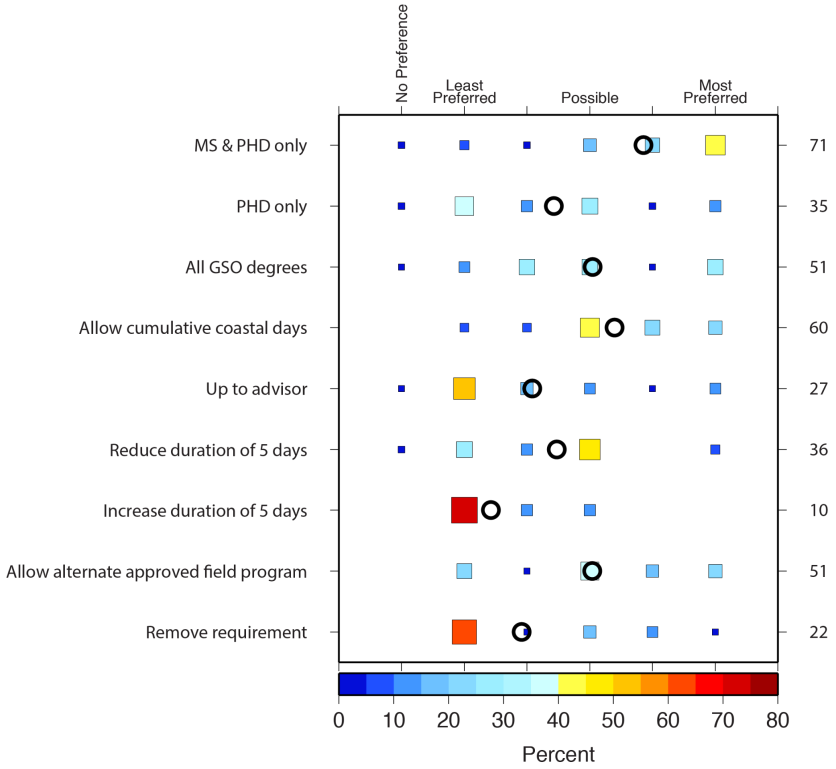


Figure 44. Survey responses regarding potential cruise requirement modifications. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

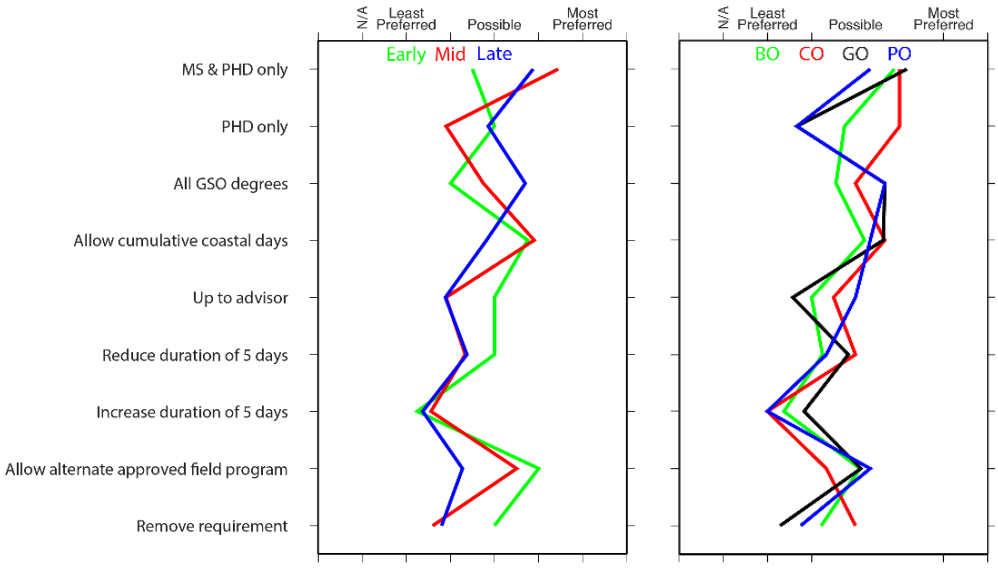


Figure 45. Similar to Figure 44, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 27) What do you feel is working well and/or what can be improved with the cruise requirement?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to collect open-ended comments/suggestions from faculty about what aspects of the cruise requirement are working well and what needs improvement.

¶

Observations¶

Below is a list of preliminary observations based on faculty comments.

- Overall
  - ➢ faculty feel field experience is essential
  - ➢ suggest more flexibility for purpose of inclusivity and relevance for students

¶

Comments¶

Working Well

It gets the students into the field!

It's a great opportunity for students to understand what happens at sea and to take ownership in results.

There seem to be enough cruise opportunities to accommodate student needs apart from the pandemic.

Field work is essential to many and therefore we should try to make it an available option.

Suggested Improvements

Good to encourage getting into the field. Should allow a bit more flexibility in what counts.

I like the cruise requirement but think that in some cases alternatives should be allowed.

There are limitations that may make this requirement highly difficult for individuals. I think alternate field programs should be an option as well as many coastal ship days (that are not overnight).

Lack of available cruises.

I don't know how often students end up on a cruise that is irrelevant to their field in order to fill the requirement. Is there any attempt to establish relevance of the cruise to the students' fields of study?

I see some flexibility as necessary if we are going to become a more inclusive community.

4.5 Research Proposal Presentation¶

Question:¶

- 28) Rate the importance of the research proposal presentation for GSO student development.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to determine the faculty's perspective of the importance of the research proposal presentation.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 46 & 47).

- Overall
  - ➢ faculty rate the importance of the research proposal presentation very highly (82 rating) with most common responses of high or very high
  - ➢

- Trends
  - ➢ a couple of early-career faculty rate the research proposal presentation substantially lower than mid- and late-career faculty
  - ➢ PO faculty rate the importance uniformly very high (100 rating) and followed by BO (85 rating) and GO faculty (76 rating) with mostly high and very high responses
  - ➢ CO faculty have a wide spread of responses from very low to very high, which yields and overall lower average rating (62 rating) for the importance

¶

Comments¶

The way it is designed here is faulty. Students should prepare their proposal in the 1st year (MS) or 2nd year (PhD) so they can actually use it. Mind-boggling to have them do a "fake proposal" to a committee when they have already finished the bulk of the project.

Timing needs to be set in stone. All students know the deadlines and that they are firm. Continued funding depends on meeting each deadline.

¶

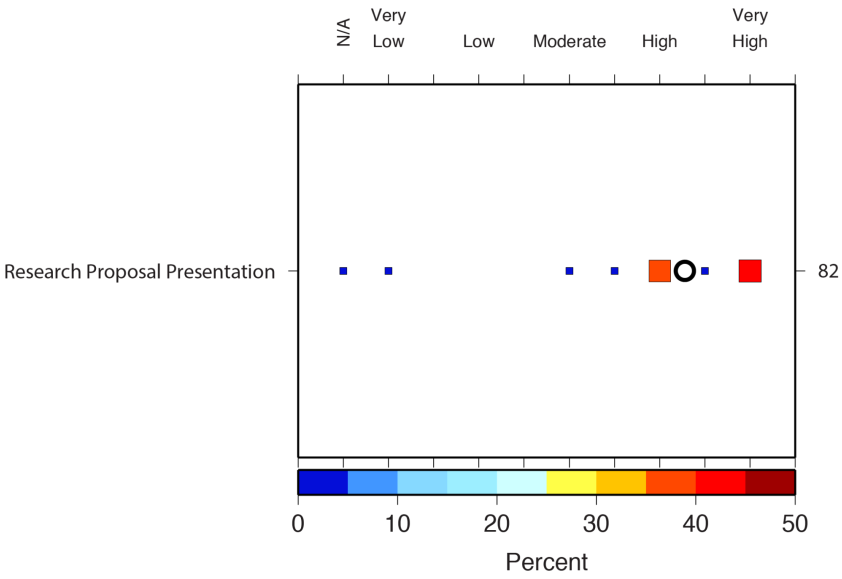


Figure 46. Survey responses regarding the importance of the research proposal presentation for GSO student development. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

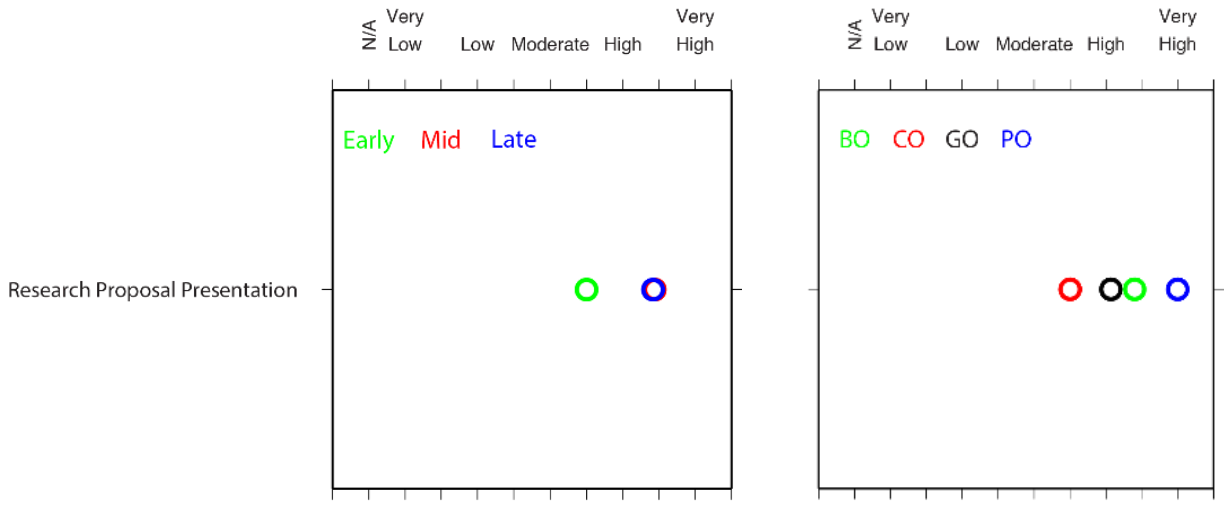


Figure 47. Similar to Figure 46, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 29) Rate the preferred timing of the research proposal presentation.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to determine the preferred timing of the research proposal presentation

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 48 & 49).

- Overall
  - ➢ most preferred options are for "at least on year prior to defense" (55 rating) and "at transition from Level II to Level III for PhD students" (52 rating)
  - ➢ least preferred options are for "remove requirement" (4 rating) and "up to the discretion of the advisor" (26 rating)

- Trends
  - ➢ similar response trends for mid- and late-career faculty with preferences for "at least on year prior to defense" (55 rating) and "at transition from Level II to Level III for PhD students"
  - ➢ early career favoring "at transition from Level I to Level II" and "upon completion of course requirements"
  - ➢ generally similar for the various curricular groups, PO and CO faculty significantly differ for the option of "at transition from Level I to Level II"

¶

Comments¶

Written/orals should happen at completion of course work. Proposal should happen after that within a year of the orals.

After completing comprehensive exams for PhD students & beginning of 3rd semester for MS.

Sooner the better, as long as the research questions have been formulated. The document can be revised if necessary.

Best timeline should be discussed, relative data picked and stuck to. Proposal defense is distinct from course work. Courses can bring in delays, not offered etc. Research should have hard deadlines. Like start of 2nd year for MS start of 3rd year for PhD maybe.

The way it is designed here is faulty. Students should prepare their proposal in the 1st year (MS) or 2nd year (PhD) so they can actually use it. Mind-boggling to have them do a "fake proposal" to a committee when they have already finished the bulk of the project.

Timing needs to be set in stone. All students know the deadlines and that they are firm. Continued funding depends on meeting each deadline.

¶

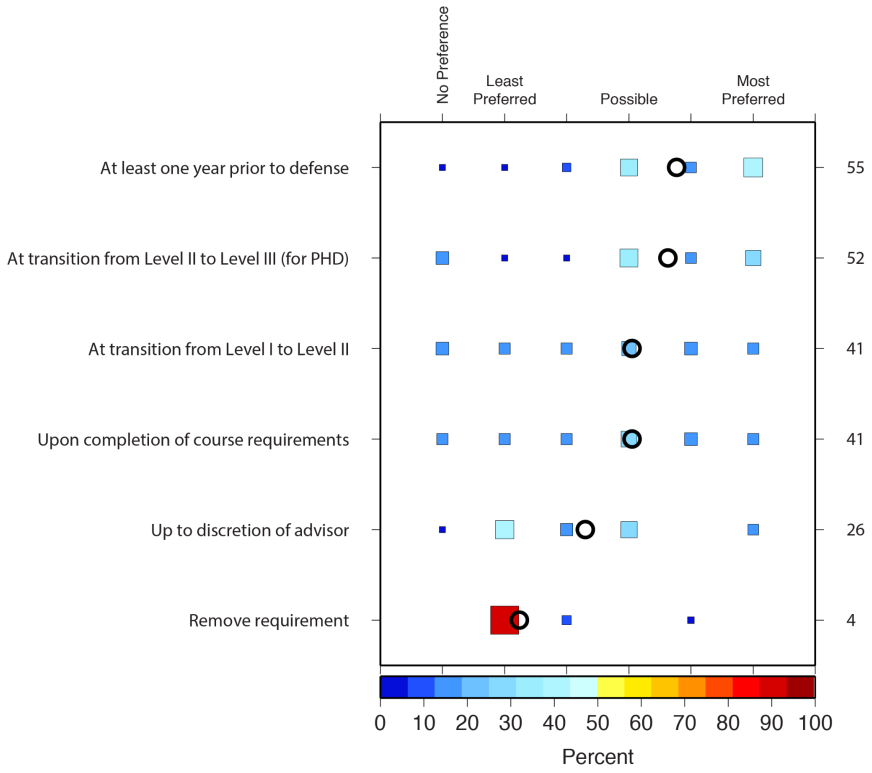


Figure 48. Survey responses regarding the preferred timing of the research proposal presentation. Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

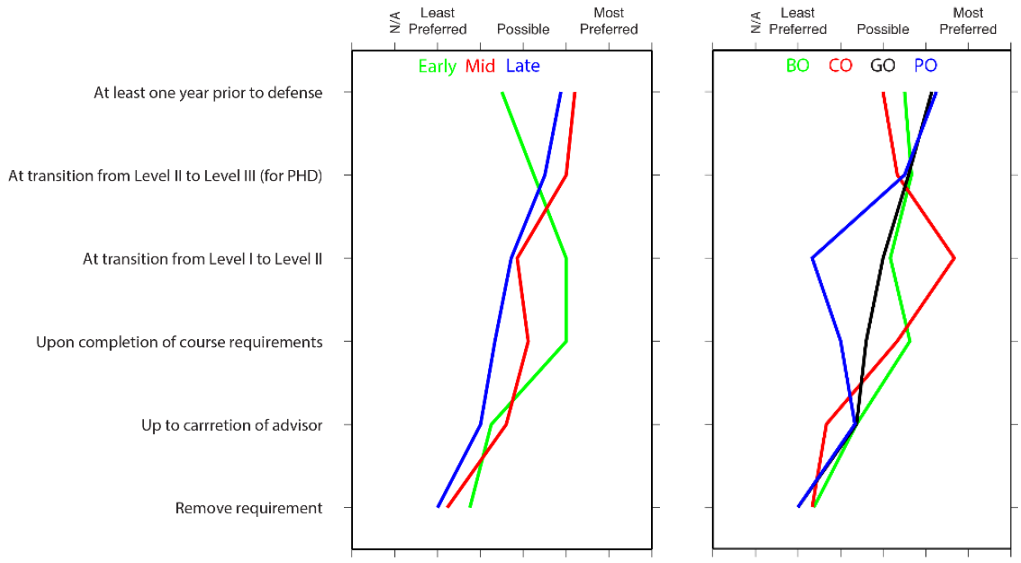


Figure 49. Similar to Figure 48, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 30) What do you feel is working well and/or what can be improved with the research proposal presentation?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to collect open-ended comments/suggestions from faculty about what aspects of the research proposal presentation are working well and what needs improvement.

¶

Observations¶

Below is a list of preliminary observations based on open-ended comments.

- Overall
  - ➢ overall, responses are very supportive of this important stage in the student's career and development
  - ➢ numerous comments about a more stringent timing and earlier in the research progression

¶

Comments¶

Working Well

I like most things about the research proposal.
It seems to be working well.
This is an important piece of students planning their work.
Very useful discussion.
Students at GSO have few opportunities to truly think on their feet. I think this requirement is a key learning milestone for students.

Suggested Improvements

I think it should be more strongly enforced to be completed after the courses are done (e.g. fall of third year). Allowing students to routinely put it off until their fourth or fifth year when they often have large portions of the thesis work done defeats the purpose.
I think it should be required in the second or third year. I think we should reconsider the format of our comps exams.
It needs to be done way earlier and used.
I think there should be better communication of the timing expectations from the program.
Current timing is awkward as plenty of research is already completed.
Have it be open to the community just as the thesis defense is now.

4.6 Comprehensive Exams¶

Question:¶

- 31) Rate the importance of the comprehensive exams for GSO PhD student development.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to determine the faculty's perspective on the importance of the comprehensive exams.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 50 & 51).

- Overall
  - ➢ most frequent faculty responses indicate a moderate to high rating (65 rating) for the importance of comprehensive exams

- Trends
  - ➢ early-career faculty ratings are substantially lower than mid- and late-career ratings
  - ➢ PO faculty rate the importance of comprehensive exams the highest (high to very high) with CO faculty providing the the lowest ratings (low to moderate), while BO and GO faculty have similar ratings in the moderate to high range

¶

Comments¶

I think comps are a useful exercise but don't love the current design.
Required by the grad school.
Based on my own experience, preparing for comprehensive exams with other students was fundamental. As all were taken in the same semester our cohort studied together. Helping each other prepare was where the real learning took place, not during the actual courses.

¶

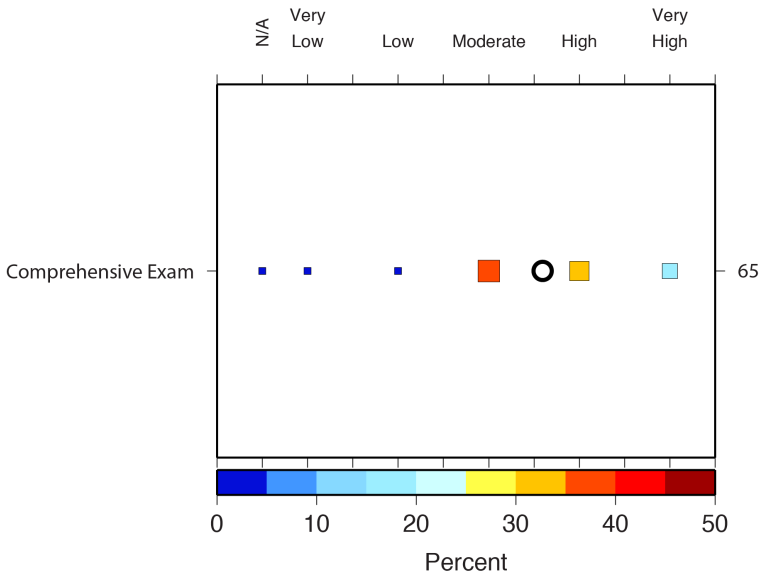


Figure 50. Survey responses regarding the importance of the comprehensive exams for GSO PhD student development**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

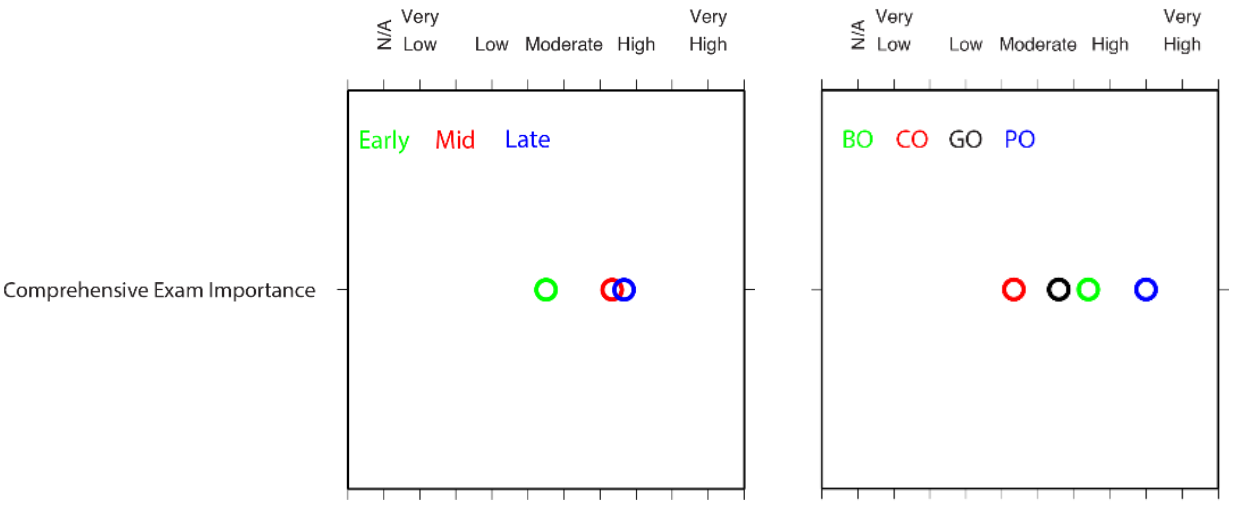


Figure 51. Similar to Figure 50, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 32) Rate the purpose of comprehensives in your opinion. (select all that apply)¶

¶

Purpose/Goals→ ¶

The purpose of this question is to get the faculty's perspective(s) on the purpose of comprehensive exams.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 52).

- Overall
  - ➢ all provided options received a significant number of selections (15 - 21), but the two most common selections were "demonstrate sufficient competency to continue research" (20, 21) and "demonstrate sufficient competency to continue degree" (16, 17)

- Trends
  - ➢ slightly different preferred options for the various career stages
  - ➢ most common early-career stage was "demonstrate sufficient competency to continue research"
  - ➢ most common mid-career stage was "demonstrate sufficient competency to continue research" and "demonstrate sufficient competency to continue degree"
  - ➢ most common late-career stage was "demonstrate sufficient competency to complete degree"
  - ➢ BO and GO faculty had similar preferred options "demonstrate sufficient competency to continue research"
  - ➢ CO faculty emphasized "demonstrate sufficient competency to continue degree" and "demonstrate sufficient competency to complete degree"
  - ➢ PO faculty omitted "demonstrate sufficient competency in field of ocenaography"

¶

Comments¶

I think it should be to demonstrate competency in the field of oceanography, but I think it currently acts to demonstrate competency in the sub-discipline or often the general thesis topic.

This is often the stage at which it is determined by the committee that a student will be unable to complete the PhD.

It is all important. The relative percentages is where the discussion needs to be done.

¶

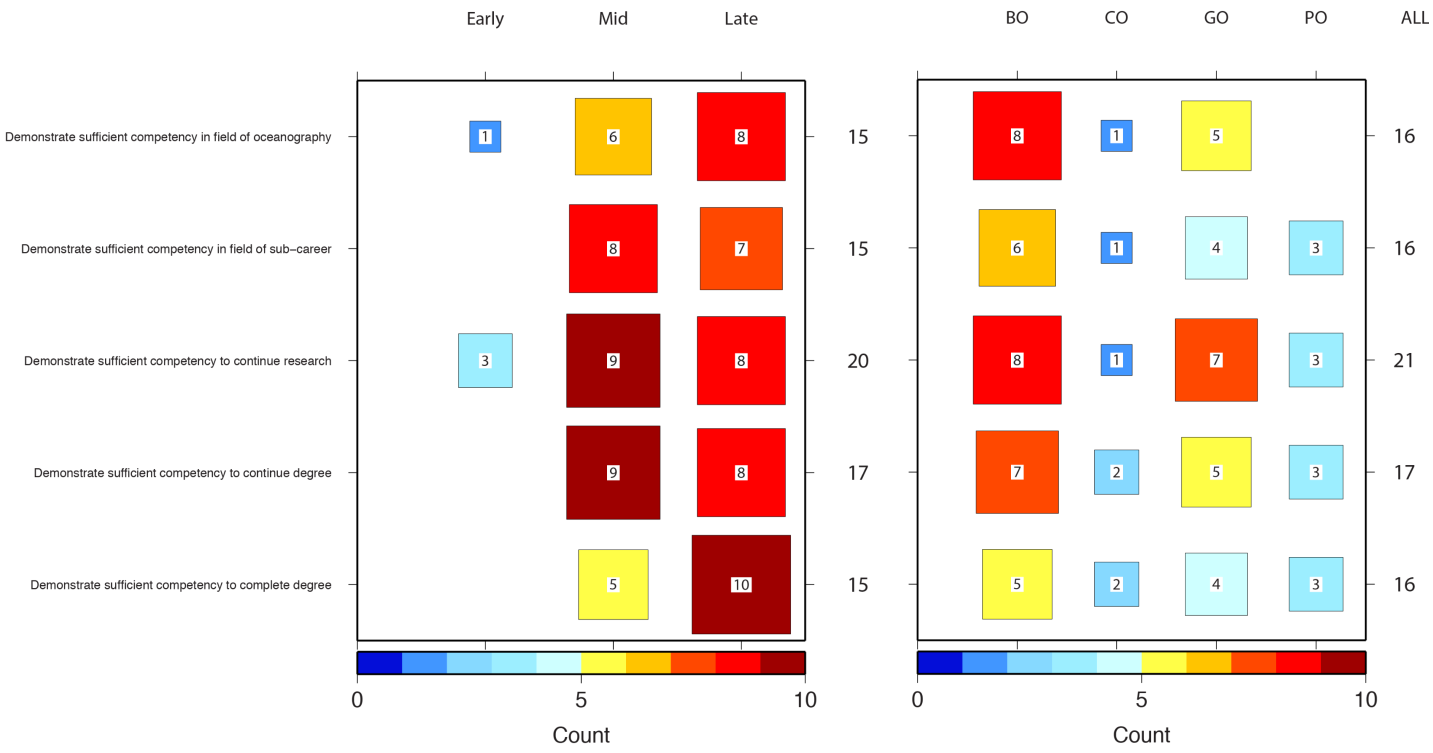


Figure 52. Survey responses regarding the purpose(s) of the comprehensive exams, according to career status (left) and curricular group (right). Response distribution and frequency are illustrated as heat maps with the color, inset number, and size of square symbols corresponding to the frequency of responses within each row/core course. The number of responses for each row displayed to the right of the plot.

Question:¶

- 33) Rate when you think comprehensives should occur.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to identify when faculty think the comprehensives should occur.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 53 & 54).

- Overall
  - ➢ the most preferred options for when the comprehensives should occur are "upon completion of course requirements" (64 rating) and "at end of second year" (61 rating)

- Trends
  - ➢ similar patterns for all career stages
  - ➢ mostly similar for the various curricular groups with some departure for the PO faculty

¶

Comments¶

Degree-related research starts on day 1 for students in my group.
I would be in favor of all PhD students completing an MS in progress toward the PhD.
As soon as possible after coursework is complete.
At or near the end of the program of study.
I think during the first semester of 3rd year works well.
Some degree-related research begins on day 1... so that is a tough one.

¶

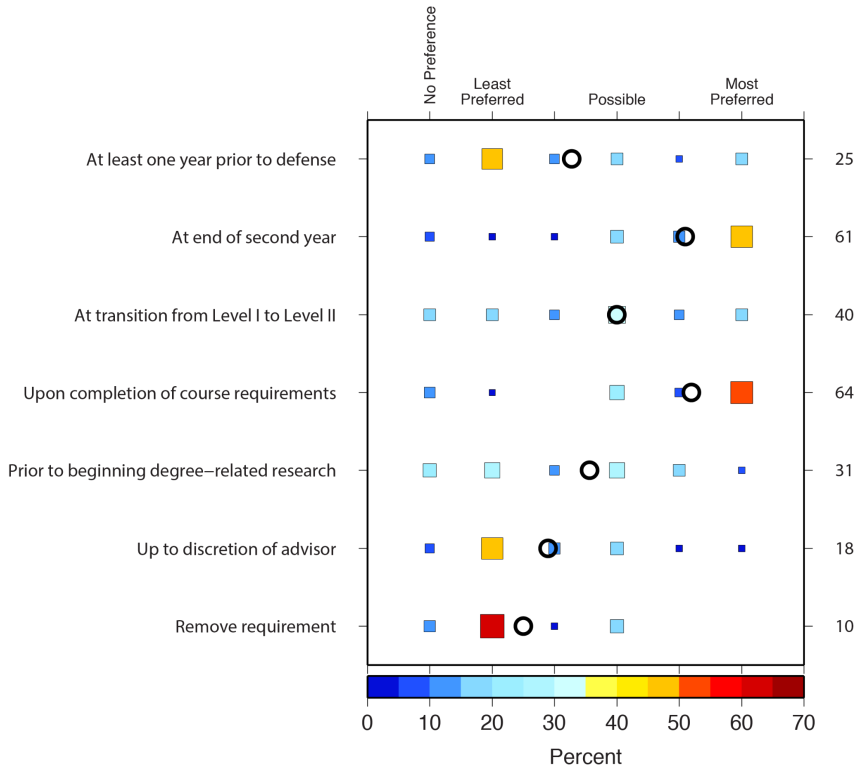


Figure 53. Survey responses regarding when comprehensive exams should be administered**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

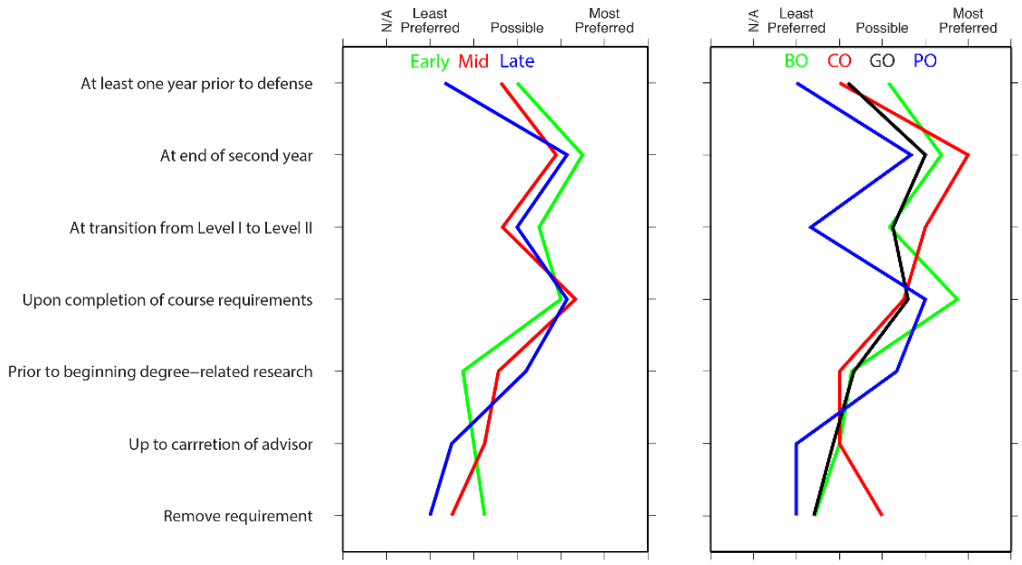


Figure 54. Similar to Figure 53, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 34) Rate the format of the written comprehensives.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to receive feedback from faculty about the preferred format of written comprehensives.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 55 & 56).

- Overall
  - ➢ most highly rated option for the format of written comprehensive exams is a "sub-discipline-specific exam at a prerequisite time for a cohort-year of students" (60 rating)
  - ➢ the two least popular options are the "NSF-style proposal" used in the Pharmacy program (26 rating) and the "original manuscript" used in Chemical Engineering program (33 rating)

- Trends
  - ➢ generally similar patterns for the various career stages, but substantially different opinions for the option of the "same written exam at a prerequisite time for all sub-disciplines in a cohort year" and the "original manuscript"
  - ➢ substantially different preferences for the various curricular groups
  - ➢ BO and and especially PO faculty prefer the "sub-discipline-specific exam at a prerequisite time for a cohort-year of students" option
  - ➢ CO faculty strongly prefer the "original manuscript" option used in Chemical Engineering
  - ➢ GO faculty slightly prefer the "tailor exams to individuals but taken at a specific time" option

¶

Comments¶

I don't equate the comprehensive exam with writing a proposal or manuscript because these are generally much narrower topics.

Depends on discipline. PO is much narrower than GO. PO is physics/ocean where all students take the same courses. So it is ok for a cohort. Could never do this in Geo. Disciplines range from geophysics to chem and "systems" range from ocean, seds, solid earth etc. No 2 students take all the same courses.

I know others want people to specialize early but it scares me when I find out how weak some people are on the basics.

¶

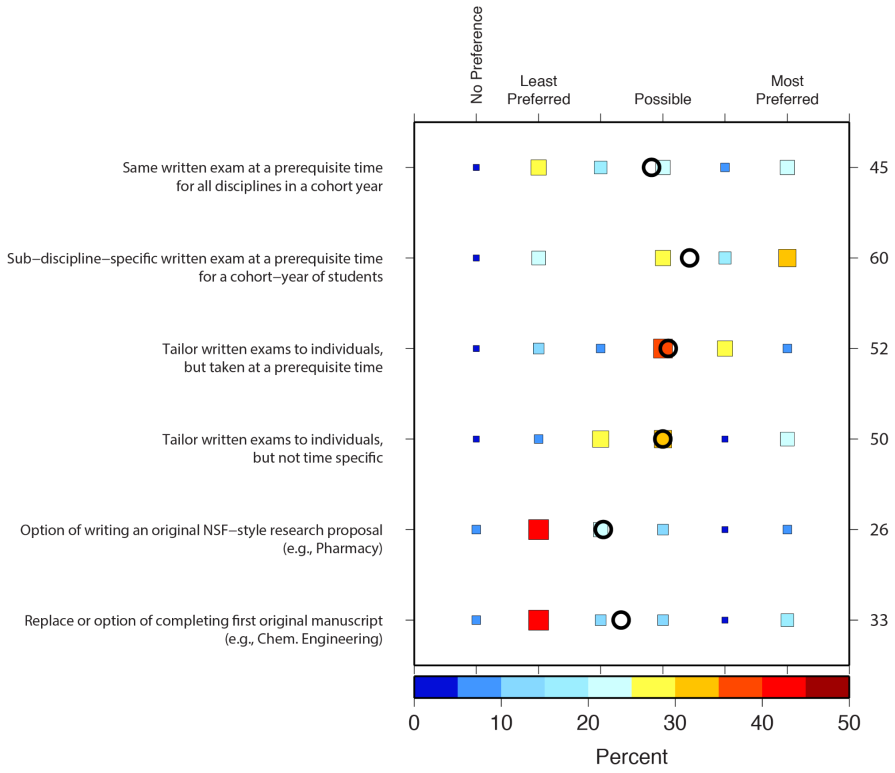


Figure 55. Survey responses regarding the format of the written comprehensives**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

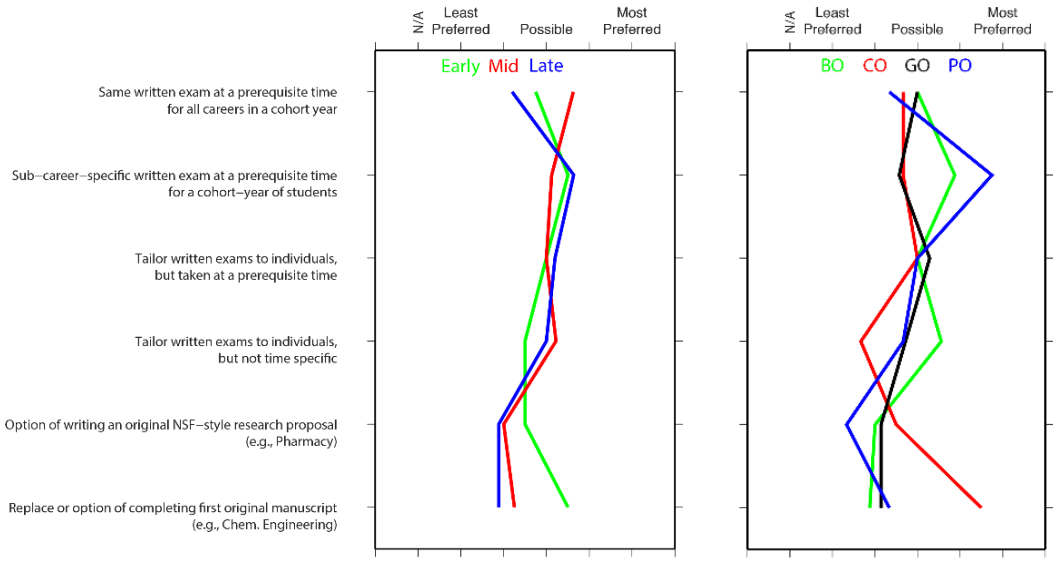


Figure 56. Similar to Figure 55, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 35) What do you feel is working well and/or what can be improved in the comprehensive exams?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to collect open-ended comments/suggestions from faculty about what aspects of comprehensive exams are working well and what needs improvement.

¶

Observations¶

Below is a list of preliminary observations based on open-ended comments.

- Overall
  - ➢ lots of different opinions…..needs more discussion.

¶

Comments¶

Working Well

Students put a lot of time into their exam and I think it shows afterwards in terms of their knowledge and confidence.

Suggested Improvements

I don't like the subjectivity of the comps, with each student being asked different questions. It is a lot of time for the committee to spend on this with both a written and oral component. I think it should be written OR oral, not both.

I think there should be some oversight in the timing of these exams by the program to ensure some students/advisors don't postpone too long.

I like the idea of an exam written for all students in a sub-discipline cohort where most of the questions are the same for all students in the cohort but there are one or two tailored for the specific student. They should be coordinated at the end of the second year to allow time for students to study together. They should focus on the four core courses with stronger emphasis on the sub-discipline.

I think a set cohort time frame for these is helpful for students and helps in ensuring steady progress towards degree.

I would love to see the anxiety associated with comprehensive exams decreased, better expectations might work, replacing with 1st author paper might also work. Some students are so stressed that they can not study properly.

Some committee members could be more diligent about framing comprehensive exam questions and thinking in advance about what constitutes an acceptable answer. i.e. make the exam a little more formal.

I think if the 4 core courses could be smartly trimmed to 2 cores that cover key processes then an exam at the end of this would cover the "oceanographic" knowledge part. Then the PhD comp could be a very discipline/thesis specific, certifying ability to do research in that area.

I would like to see a comp. exam date announced when a cohort arrives so that everyone knows what is coming and can progress at a reasonable pace. Delaying and then potentially doing poorly due to the delay/early focus on research does not benefit anyone.

4.8 Thesis/Dissertation Defense¶

Question:¶

- 36) Rate the importance of the thesis/dissertation defense for GSO student development.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to determine the faculty's perspective of the importance of the thesis/dissertation defense.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 57 & 58).

- Overall
  - ➢ faculty indicate the importance of the thesis/dissertation defense is a highly rated aspect of the graduate student development (92 rating)

- Trends
  - ➢ similarly high ratings for all career stages and curricular groups

¶

Comments¶

No comments provided.

¶

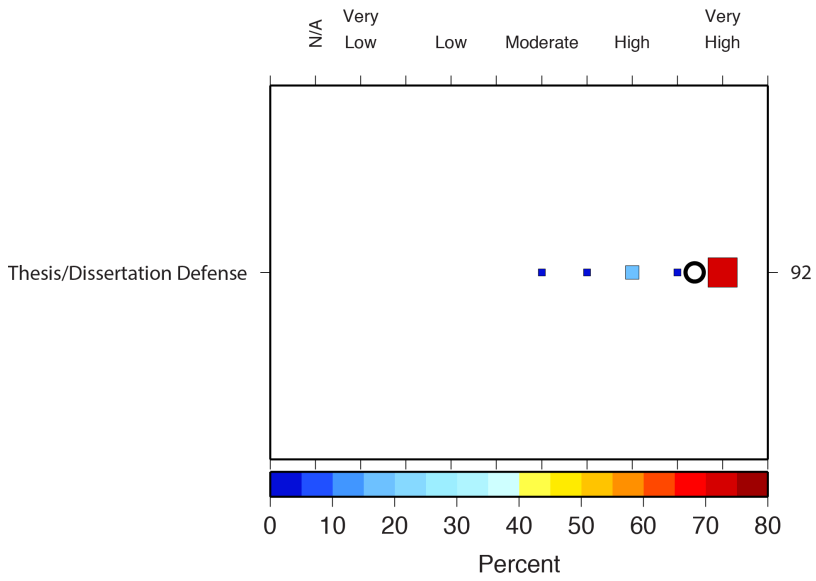


Figure 57. Survey responses regarding the importance of the thesis/dissertation defense for GSO student development**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

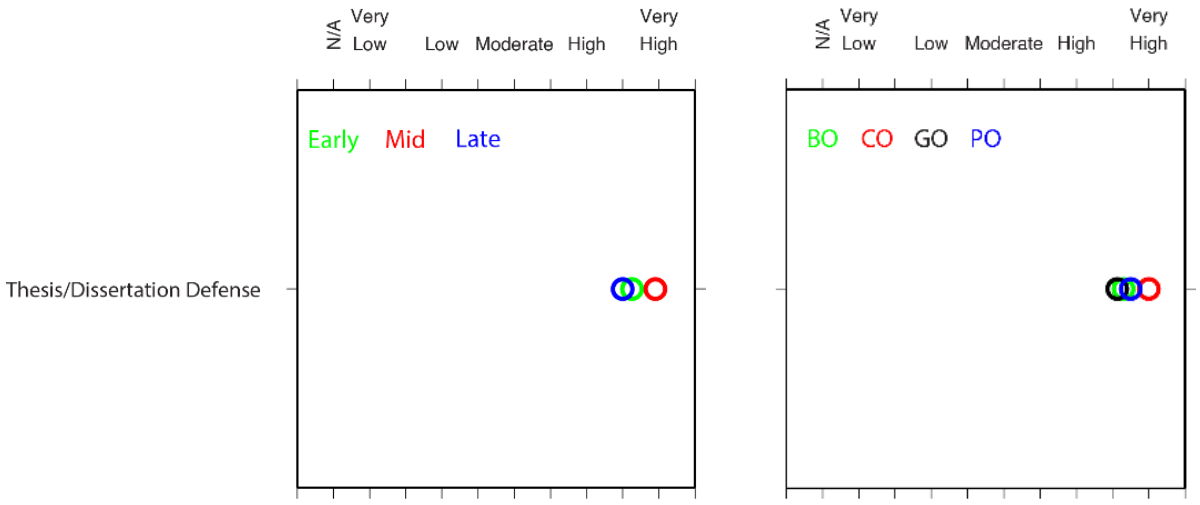


Figure 58. Similar to Figure 57, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 37) Rate preferred format aspects.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to identify which provided timing and audience formats are preferred by the faculty.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 59 & 60).

- Overall
  - ➢ most preferred responses are for "audience attendance for just student presentation (committee only for grilling)" (80 rating) and "student presentation for length of 45 minutes' (78 rating), which both responses support the existing format

- Trends
  - ➢ mostly similar patterns for all career stages and curricular groups
  - ➢ some suggestions for shorter duration of presentations for MS students

¶

Comments¶

I would say 35-45 mins for PhD and 20-30 for MS.
M.S. student ~20 minute and PhD student ~40 min.
I think a student presentation of 20 minutes followed by 10 min of general audience questions works well.
Give the students a chance to showcase and synthesize their work!

¶

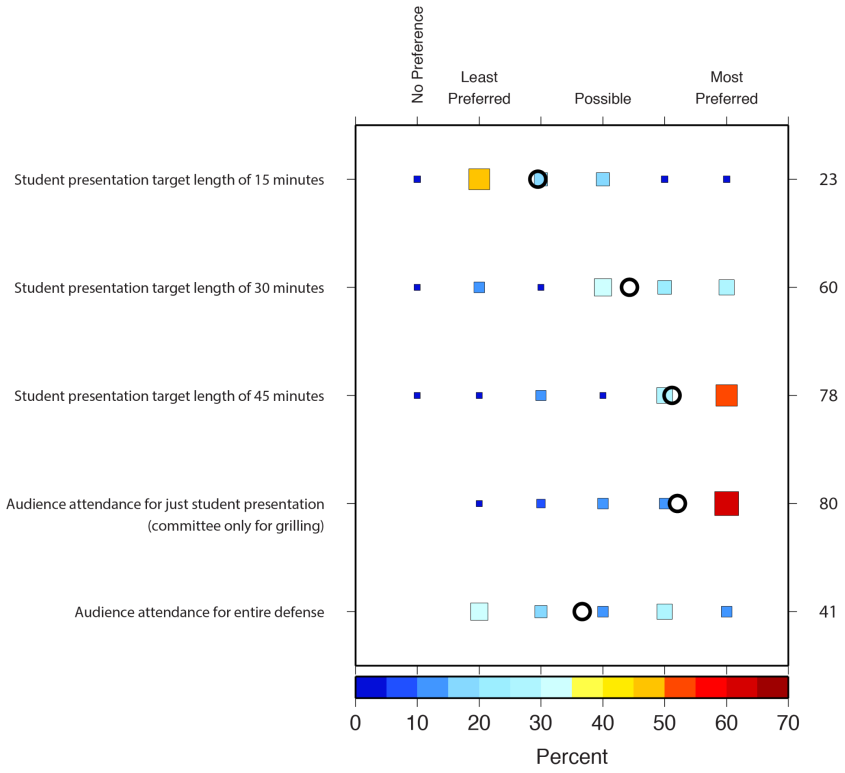


Figure 59. Survey responses regarding the preferred format of the thesis/dissertation defense**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

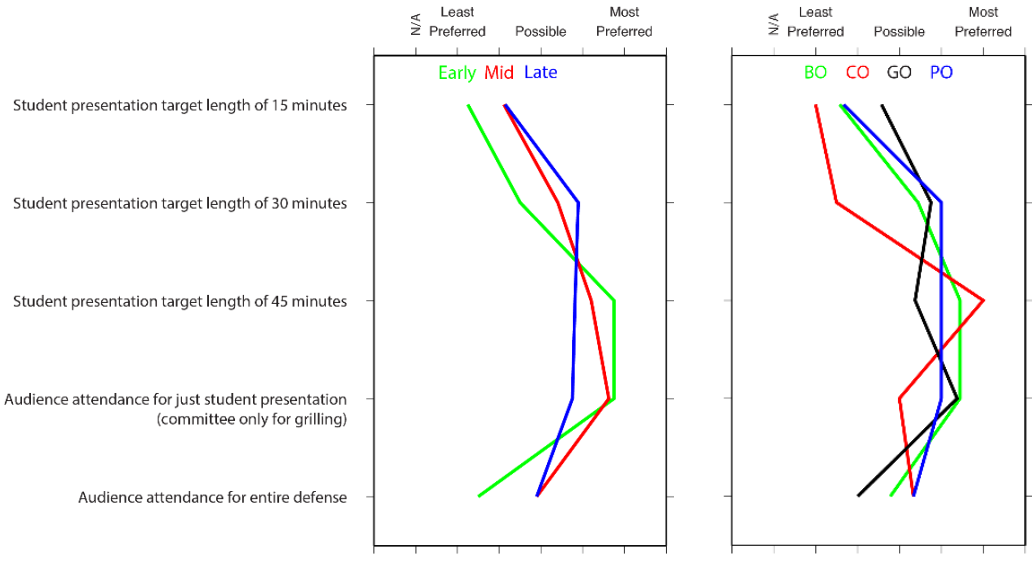


Figure 60. Similar to Figure 59, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 38) What do you feel is working well and/or what can be improved with the thesis/dissertation defense?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to collect open-ended comments/suggestions from faculty about what aspects of thesis/dissertation defenses are working well and what needs improvement.

¶

Observations¶

Below is a list of preliminary observations based on open-ended comments.

- Overall
  - ➢ lots of different opinions…..needs more discussion.

¶

Comments¶

Working Well

Student defenses are a great way for students to highlight what they know and for the committee to evaluate their readiness to graduate.

I think this is the most critical piece of Ph.D. education. I think the longer format is important to get in enough details of the work and enables the student to leave with a polished "seminar" to give elsewhere. I'm impartial about who gets to stay for what portions I'm all for transparency and supporting the students needs.

Public presentation followed by private defense offers students a chance to share and showcase their work but committee still has opportunity to scrutinize and maintain rigor or bring up concerns without concerns for public response.

Seems to work. With zoom now can bring in more international involvement perhaps.

While I miss the in person defenses I liked the virtual defenses allowed for lots more people to join including friends and family from afar.

Suggested Improvements

I strongly dislike the mandate that all committee members be there in person. I think having a time limit is useful but I think 2 hrs is too short of a max especially if it includes the 45 min seminar. I'd like a 2 hr max on the closed door portion.

More student questions should be encouraged!

Stop the first question from the advisor being "Will you give a presentation of your work?" It is not a real question and the answer is obviously yes.

Public presentation followed by private defense offers students a chance to share and showcase their work but committee still has opportunity to scrutinize and maintain rigor or bring up concerns without concerns for public response.

There is a discrepancy between GSO (where 45-min presentations are encouraged and other departments that stick to a firm 2-hours limit. This leaves committee members little time to ask questions which is unfair considering their time invested in reading the thesis/dissertation.

4.8 Outreach¶

Questions:¶

- 39) How important is it for students to participate in some sort of outreach or application of their knowledge/skills beyond academia?
- 40) Rate your interest in requiring students to participate in some sort of outreach or application of their knowledge/skills beyond academia.¶

¶

Purpose/Goals→ ¶

The purpose of this question is to assess the importance of graduate student outreach and if an outreach requirement should be imposed.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 61 - 64).

- Overall
  - ➢ faculty consider graduate student outreach to be an important aspect of development (rating 73)
  - ➢ not as much support for making outreach a graduate student requirement (rating 60)

- Trends
  - ➢ similar patterns of importance for all career stages and curricular groups with CO faculty rating it a little bit higher
  - ➢ while all the curricular groups have a similar rating for imposing an outreach requirement, late-career faculty are less enamored than the early- and mid-career faculty with making outreach a requirement

¶

Comments¶

I think this will only be beneficial.

I think this can be combined with more formal on-water ocean experiences. Many RI-ers (agencies/citizens) are focused on Bay (RI waters). Part of students outreach could be presenting their own (short) Bay data/research experiences to local stakeholders.

Academia isn't about amassing information for ourselves. At its core academia is about increasing our collective knowledge on the workings of the world and our place in it. That doesn't work if the knowledge we gain isn't shared. Outreach is absolutely part of the job and should be in our and our student's contracts.

Graduate research is a time to become deeply engaged in a topic. Outreach is important and often comes with the "job" but it should not be required and we should not teach graduate students to emulate faculty who are scattered with so many fragmented job responsibilities.

It can only be required if opportunities are provided.

¶

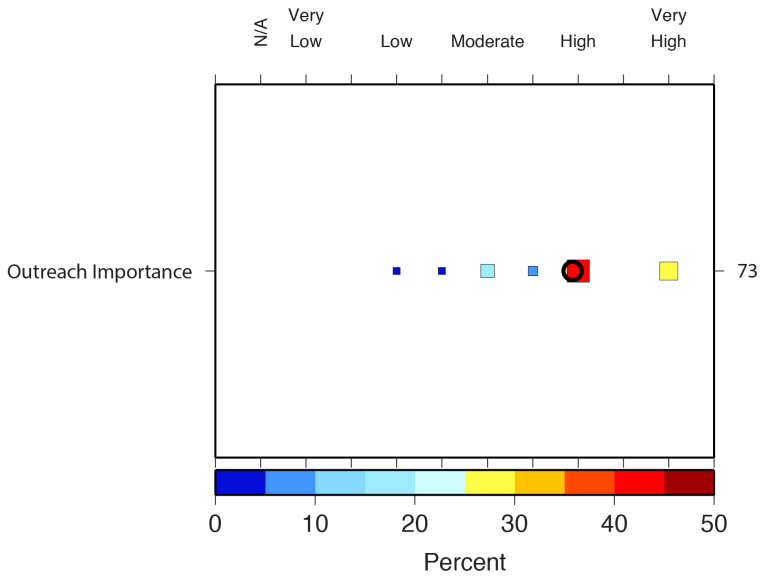


Figure 61. Survey responses regarding the importance of students participating in some sort of outreach or application of their knowledge/skills beyond academia**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

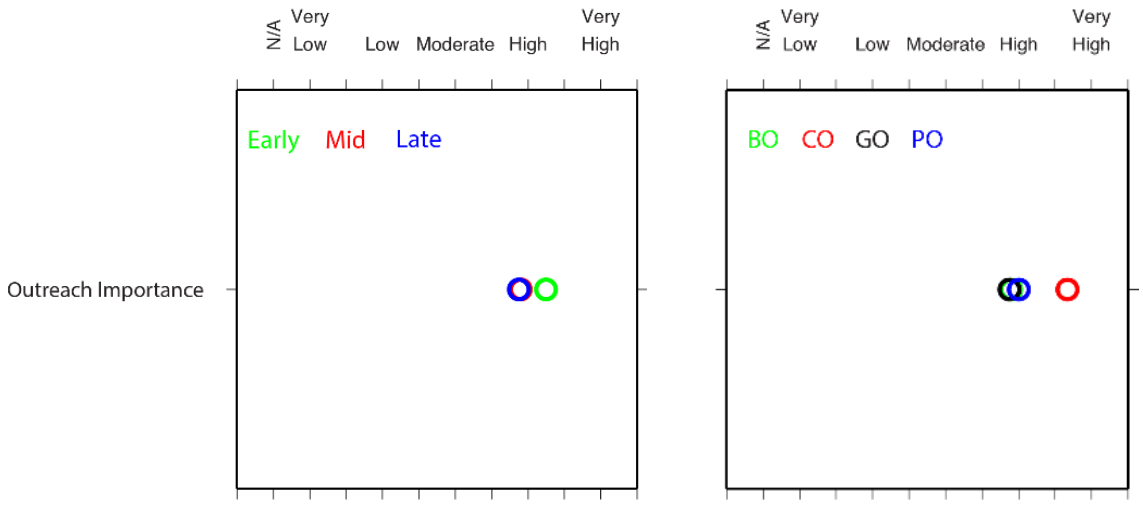


Figure 62. Similar to Figure 61, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

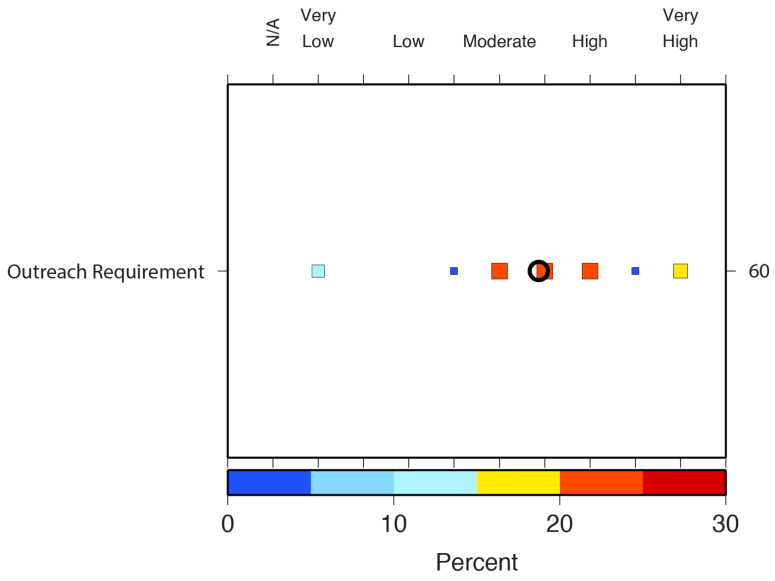


Figure 63. Survey responses regarding a student outreach requirement**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

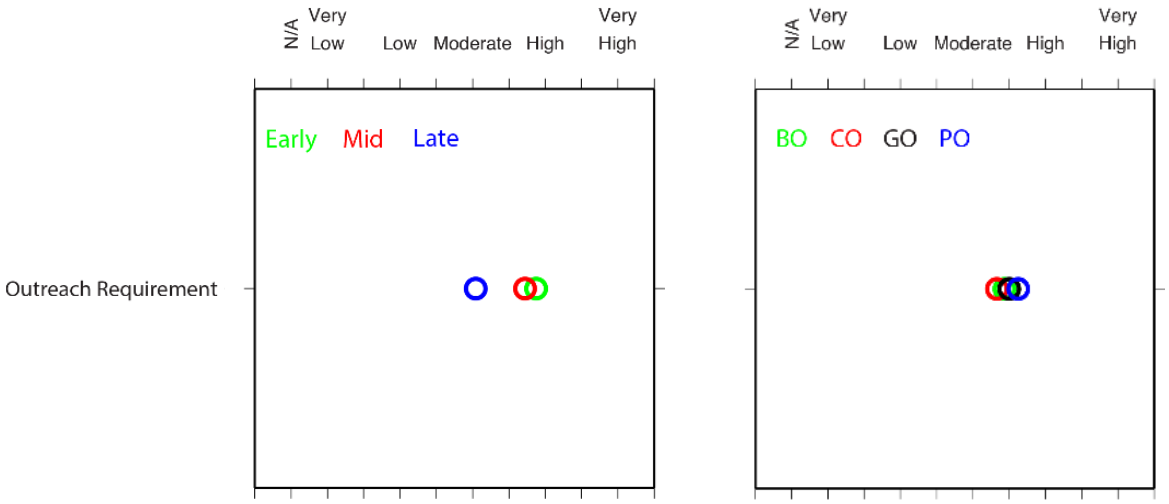


Figure 64. Similar to Figure 63, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 41) How extensively have you engaged in outreach with the various groups listed below?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to determine the extent to which faculty participate in outreach with the various provided options.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 65 & 66).

- Overall
  - ➢ faculty on average report low to moderate engagement with the various potential outreach groups
  - ➢ very low engagement interaction is observed for the Coastal Resource Center, museums and aquariums

- Trends
  - ➢ early-career faculty generally are more involved in outreach compared to mid- and late-career faculty
  - ➢ BO faculty tend to be the most involved in outreach with GO faculty significantly involved with K-12 students and educators

¶

Comments¶

Town planning groups local environmental advocacy groups waste water treatment facility managers.

¶

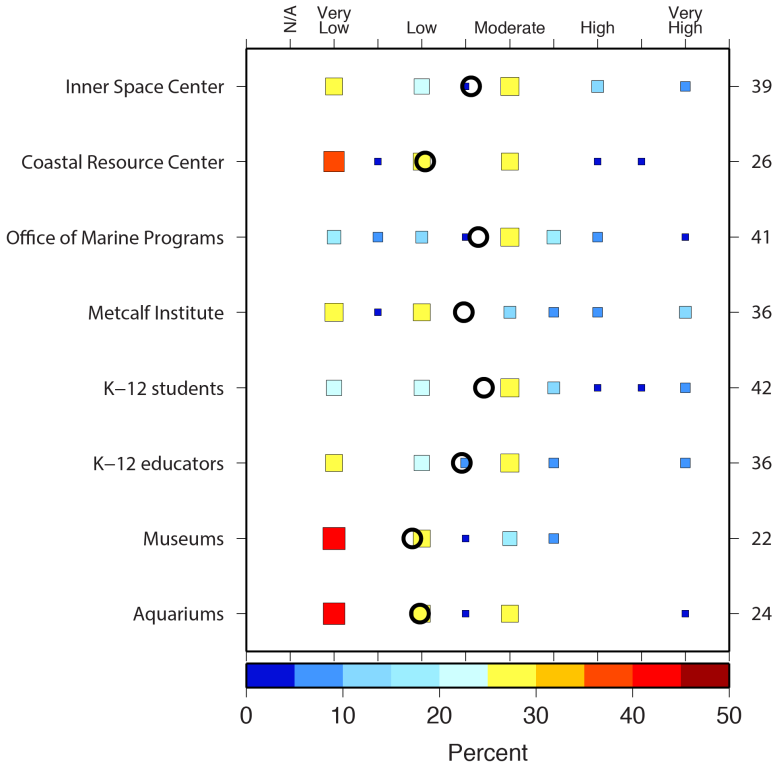


Figure 65. Survey responses regarding a student outreach requirement**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

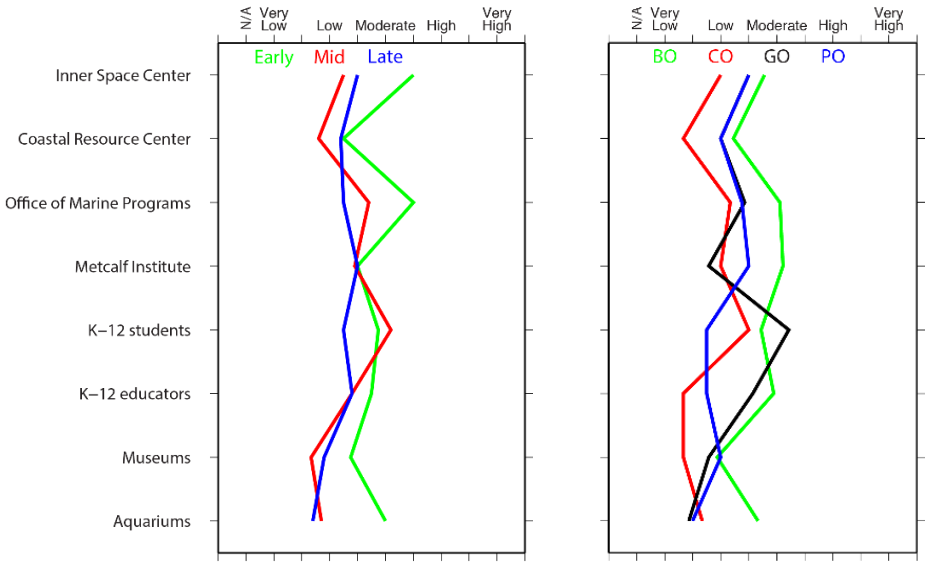


Figure 66. Similar to Figure 65, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

4.9 Open-Ended¶

Question:¶

- 42) What do you feel is working well and/or what can be improved with outreach?¶

¶

Purpose/Goals→ ¶

The purpose of this question is to collect open-ended comments/suggestions from faculty about what aspects of outreach are working well and what needs improvement.

¶

Observations¶

Below is a list of preliminary observations based on open-ended survey questions.

- Overall
  - ➢ faculty like the abundance of outreach options
  - ➢ faculty would appreciate assistance with identifying opportunities, as well as assistance from a centralized entity to conduct or support outreach activities

¶

Comments¶

Working Well

We have lots of great options with OMP ISC CRC etc.

We have many options- I like that.

Suggested Improvements

I think we could do a better job letting people know what options are available.

I think the outreach entities on campus could host strategic events to help faculty staff and students feel more comfortable in engaging with outreach (providing ideas and opportunities).

It would be nice to have a service expectation for our students. I think GSO as an institution doesn't do enough outreach - an annual campus open house is good (especially when it actually happens anually) but development of established pathways for PIs or groups to leave campus and perform outreach activities off site is a better way to reach diverse demographics that can't or won't come to us. We need some kind of centralized outreach arm that all research/PI groups can work through to connect with opportunities that increase our connections to a broad spectrum of the population within RI and beyond.

I think getting students to do some type of engagement is invaluable. I know that not all are well-suited to outreach but I think it's important for development and understanding of society.

I believe GSO could become the science/data arm of agencies like CRMC WWTFs RI-DEM etc. If all GSO students had small/well defined on-water data gathering skill building scientific method intro. experience that involved working/planning with one of these state/town/fed agencies this would provide many benefits for the students and the end users. This manner of outreach could be a valuable part of the GSO experience.

Several people have done a great job coordinating GSO outreach activities but it is difficult for the faculty to seek assistance from any individuals on project-related outreach activities. It would be great if we could have someone at GSO as the designated outreach coordinator.

Question:¶

- 43) Rate the importance of the thesis/dissertation defense for GSO student development.¶

¶

Purpose/Goals→ ¶

This question is a little redundant with Question 36, but provides additional options beyond just MS and PhD degree paths. This question also provides a bit of a quality check for survey fatigue.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 67 & 68).

- Overall
  - ➢ faculty indicated highest importance of thesis/dissertation defense for PhD students (90 rating) and MS students (85 rating) and substantially lower for all other students (35 - 42 rating)

- Trends
  - ➢ early-career faculty give a substantially lower rating for thesis/dissertation defense than mid- and late-career faculty
  - ➢ similar trends for all curricular groups, though PO faculty give much lower importance ratings for students other than PhD and MS students

Comments¶

All should have some type of "defense."

Don't understand the question. The defense is either required or not by the program.

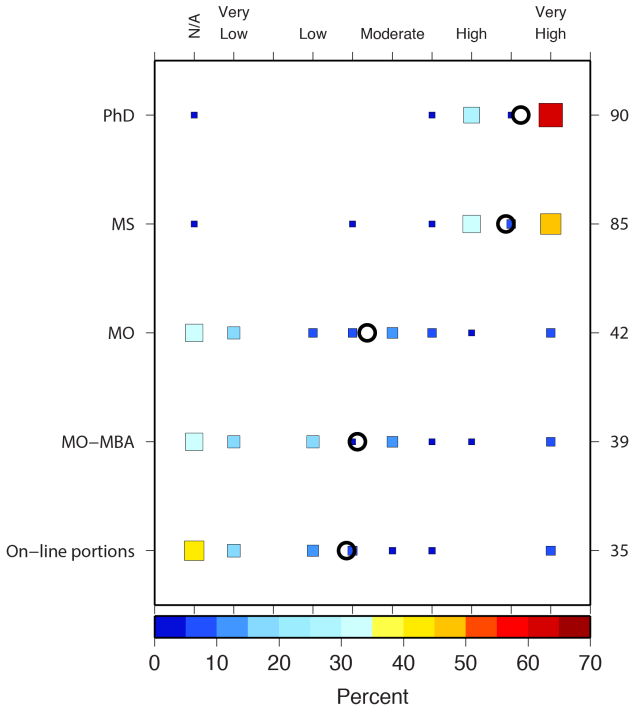
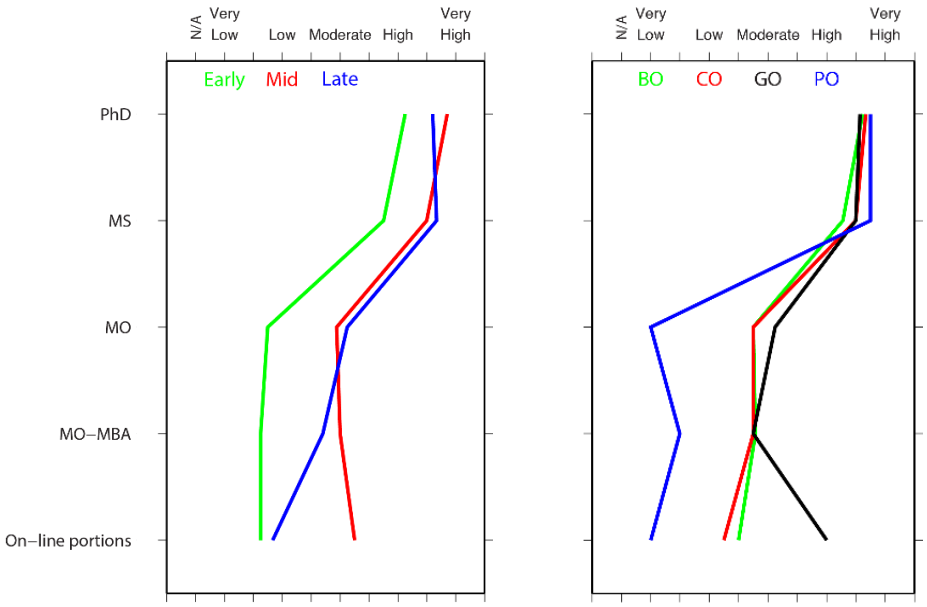


Figure 67. Survey responses regarding the importance of the thesis/dissertation defense for GSO student development**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.



¶

Figure 68. Similar to Figure 67, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

Question:¶

- 44) Any other comments or suggestions regarding the core curriculum.¶

¶

Purpose/Goals→ ¶

Open-ended question to capture any issues or thoughts faculty might have about the core curriculum that are not explicitly/sufficiently covered in the survey questions.

¶ ¶

Comments¶

This survey was very helpful thanks.

Our curriculum needs an overhaul that distributes teaching capacity equitably amongst faculty and makes faculty expertise broadly available to all our students rather than a select few receiving highly specialized individual-level targeted instruction.

Our curriculum needs to have maximum flexibility to accommodate students in their diverse research and career paths - we should strive to build a cohort of incoming students that take at least one course together each of the first 2 semesters.

We need to change the core courses!!!!

My impression is that GSO is doing a lot well but it could/should evolve as the field of oceanography has. There is a lot of need for applied work with public engagement. In the past, doing blue water work with publications was enough, but my impression there is a greater need and opportunity (funding) for applied and/or engaged research.

Provided sufficient resources I think the Academic Affairs Office could do more to post anticipated course offerings 1-2 years out for students to plan their programs of study. This would also help to schedule classes to avoid conflicts. We could also post course curricula.

¶

Question:¶

- 44) Rate how you feel we should proceed towards a successful review/revision of the core curriculum (e.g., course, requirements).¶

¶

Purpose/Goals→ ¶

The purpose of this question is to request input from faculty for how to proceed towards a successful review/revision of the core curriculum, if deemed necessary.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 69 & 70).

- Overall
  - ➢ highest rated approaches are "assisted with pedagogy/curriculum workshops or facilitation" (73 rating), "allow a collective of faculty to decide" (58 rating), and "allow sub-disciplinary groups to decide" (52 rating)

- Trends
  - ➢ generally similar trends for various careers stages, but somewhat lower rating by mid-career faculty for "allow sub-disciplinary groups to decide"
  - ➢ somewhat similar patterns for curricular groups, but largest departures for who decides and if any change is needed
  - ➢ BO and GO faculty indicate a significant need to change while PO and CO faculty indicate a moderate or low need to change
  - ➢ PO faculty prefer the option of letting sub-disciplines decide rather than a collective of faculty or all faculty to decide

¶

Comments¶

We probably need a committee with some power to make decisions.
Allow all faculty to participate as they wish.
Meaningful revision will require a coordinated approach.

¶

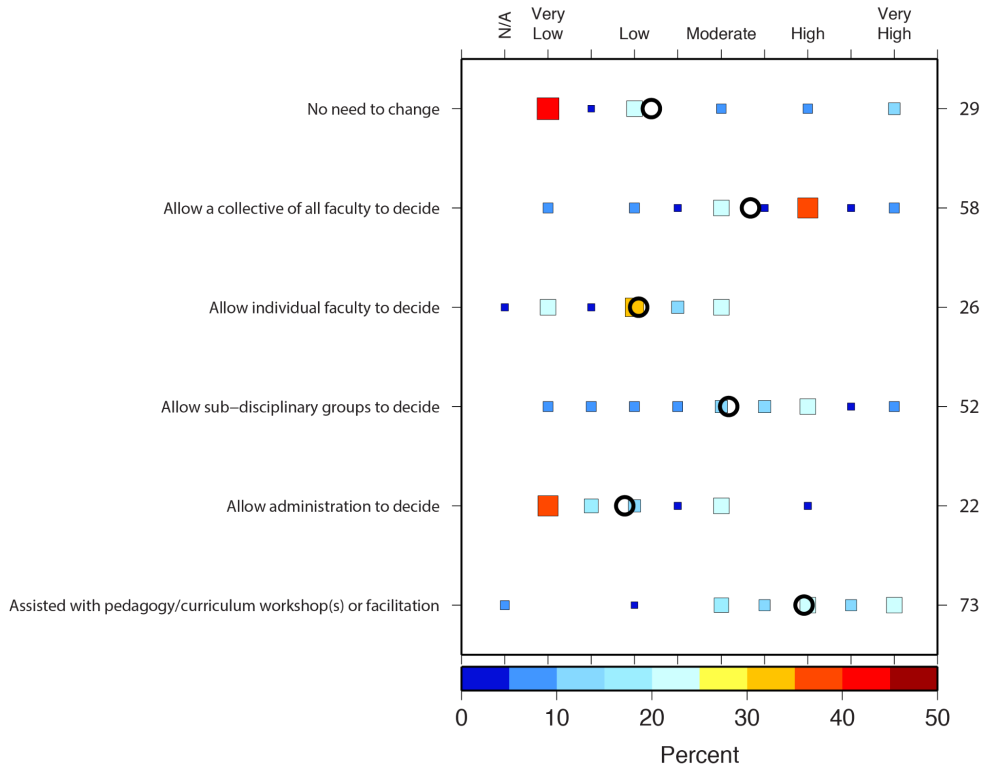


Figure 69. Survey responses regarding a student outreach requirement**.** Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot.

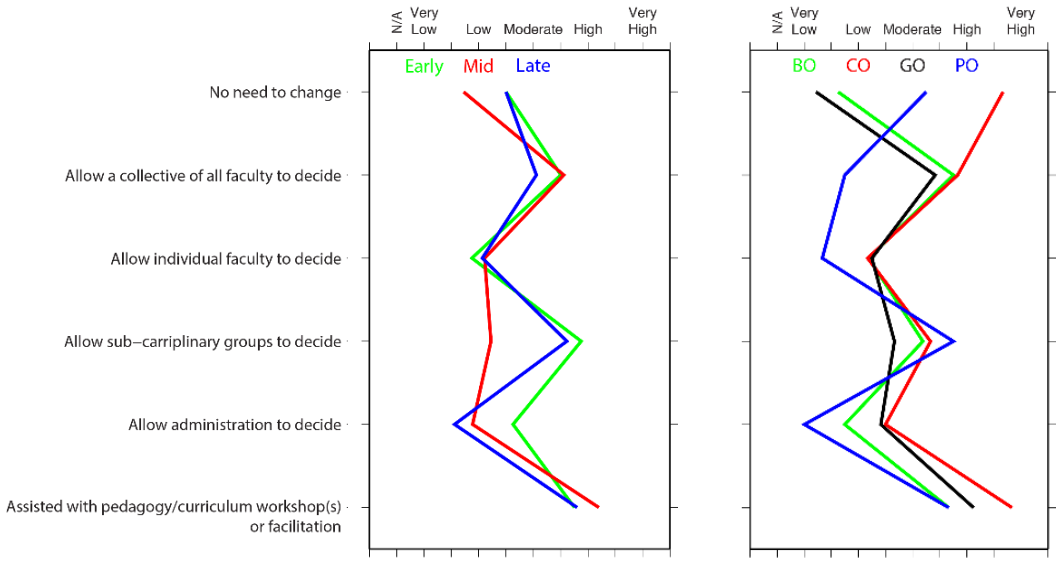


Figure 70. Similar to Figure 69, but plotting mean ratings and disaggregated according to faculty career status (left) and curricular group (right).

5. Faculty Topics Observations

5.1 Promotion and Tenure¶

Questions:¶

- 3) Rate the **relative importance** of the various activities you feel **are used** for faculty promotion and tenure decisions.
- 4) Rate the **relative importance** of the various activities you feel **should be used** for faculty promotion and tenure decisions.

¶

Purpose/Goals→ ¶

The purpose of these questions is to compare what factors faculty think are used for tenure and promotion decisions and what factors they feel should be used. We realize these factors are already in the faculty's contracts, but looking forward to potential changes.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 71 & 72).

- Overall
  - ➢ highest ranked factors faculty feel are used include Publications (80 rating), Research $$$$ (78 rating), and Student Advising (56 rating).
  - ➢ highest ranked factors faculty feel should be used are still Publications (78 rating) and Research $$$$ (75 rating), but Student Advising has a significant increase (76 rating)
  - ➢

- Trends
  - ➢ all promotion and tenure factors beside Publication, Research $$$ and Undergraduate Teaching have significant gains for preferred versus actually used
  - ➢ roughly similar patterns are observed for all career stages and all curricular group

¶

Comments¶

I sorely wish outreach and service were more important and considered integral parts of the job.

URI has actual guidelines for Tenure and Promotion which have been negotiated with the AAUP. So it seems like you are asking for opinions.

Given our research emphasis, it is hard not to highly value $ and pubs, and it is difficult to evaluate teaching.

¶

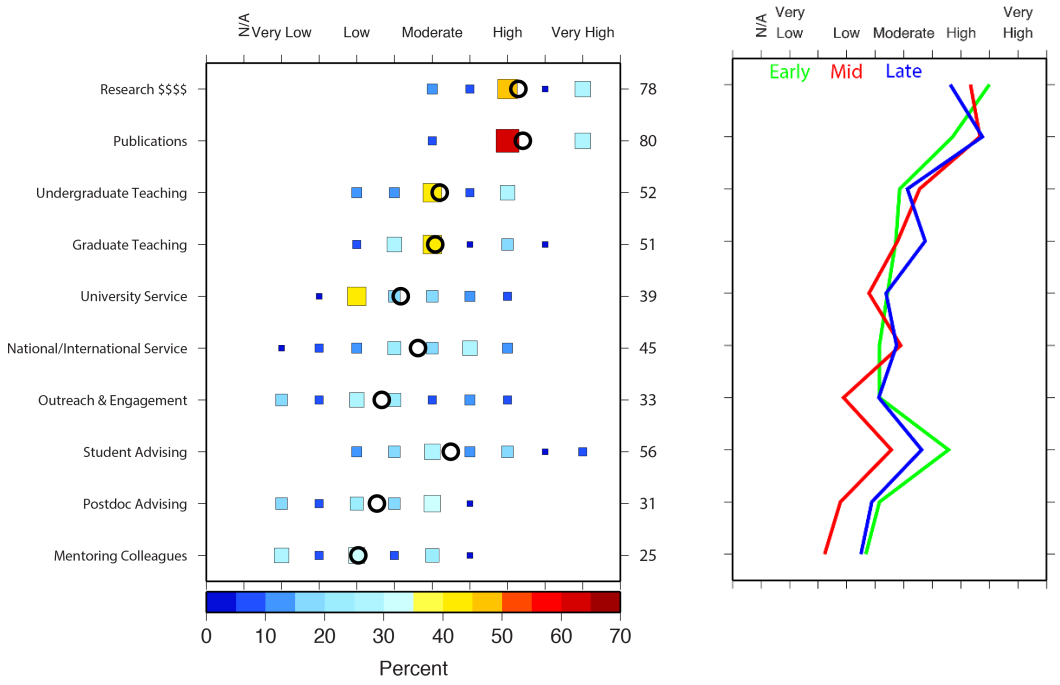


Figure 71. Survey responses regarding the importance of factors used for promotion and tenure decisions**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

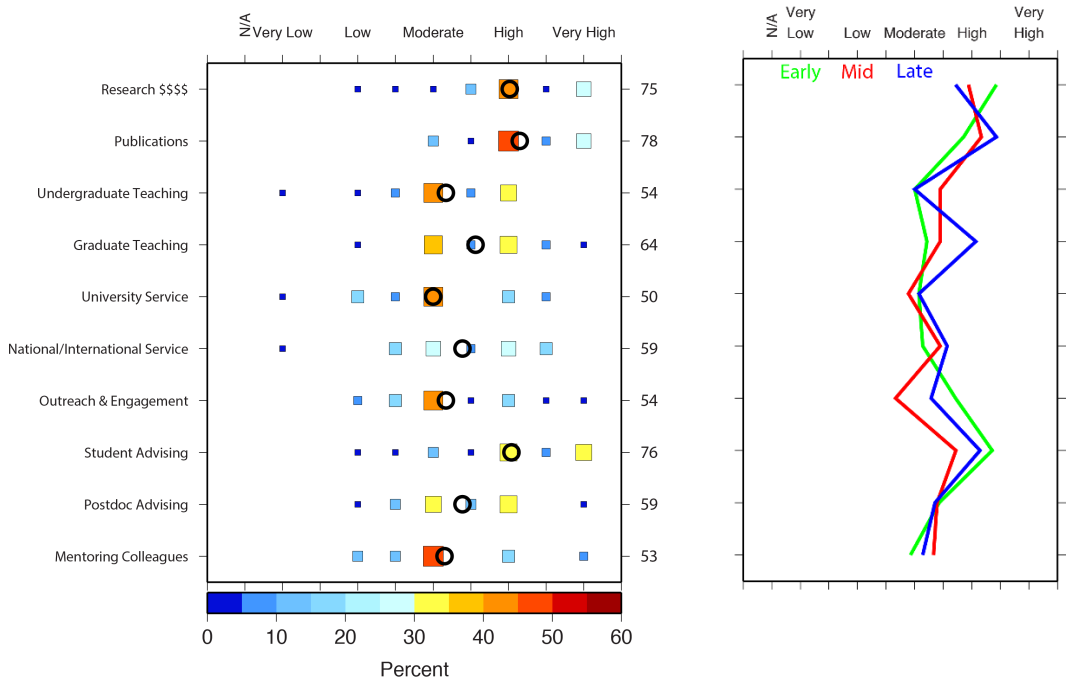


Figure 72. Similar to Figure 71, but responses of the preferred factors for promotion and tenure decisions.

5.2 Skills¶

Questions:¶

- 5) Rate the **importance** of the following skills **faculty** should have.
- 6) What other skills not provided in the list above do you value in colleagues or collaborators?

¶

Purpose/Goals→ ¶

The purpose of this question is to identify the relative importance of various soft,technical, and capstone skills among faculty and collaborators.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 73).

- Overall
  - ➢ soft skills and capstone skills are rated higher than technical skills by about 20-30 rating points.

- Trends
  - ➢ similar patterns for all career stages

¶

Comments¶

I don't see how Justice Equity Diversity & Inclusion is a skill. Certainly I think we want faculty to have training in this area but I don't understand it as posed in this context. I am ranking here based on my sense of skills ALL GSO faculty should have. Some of the options seem overly specific to certain disciplines and I ranked these low.

All of the above. Of course different faculty have different skill sets.

The ones ranked low are based on "not for everyone" two or three need to be per individual but not all. No offense, this is a poor survey question.

Other Skills

Bias training, personnel management.

Can I say fun? Cooperation: it seems like relatively few faculty put forth a lot of effort towards service and that service benefits everyone. Individualism has a place at companies but academia is designed for cooperation.

Open mindedness. I suppose that falls in with flexibility.

Altruism.

Emotional intelligence follow-through seeing commitments through to the end carrying equal weight in university service.

Being nice and fun to work with.

I would rate interpersonal skills very highly.

¶

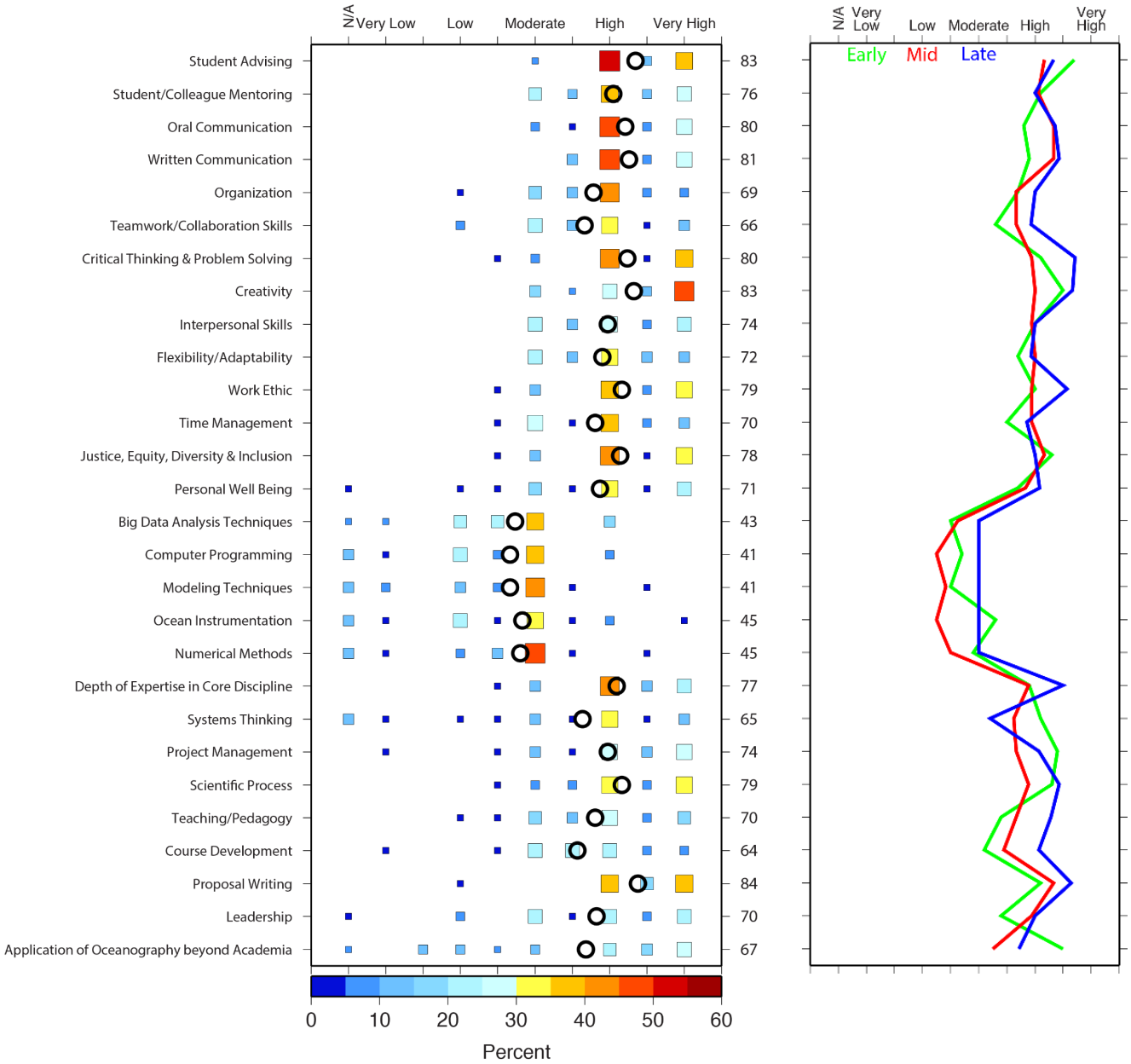


Figure 73. Survey responses regarding the importance of the following skills faculty should have. Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Question:¶

- 7) Rate your interest in possible training or workshops listed below.

¶

Purpose/Goals→ ¶

The purpose of this question is to poll the faculty regarding interest in various workshops to enhance various skills.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 74).

- Overall
  - ➢ generally moderate to high interest in various workshops/trainings with the highest ratings for Communication (69 rating) and Advising (68 rating)

- Trends
  - ➢ late-career faculty are less interested in workshops/trainings compared to early- and mid-career faculty
  - ➢ early-career indicate greatest interest in Proposal Writing & Advising workshops

¶

Comments¶

I imagine the interest in these various workshops will vary depending on career stage. For example proposal writing was really important as a post-doc and early career but I think I have it figured out now.

I would be interested in Pedagogy/Teaching and Communication. Having said this it is difficult to justify training time on top of existing workloads.

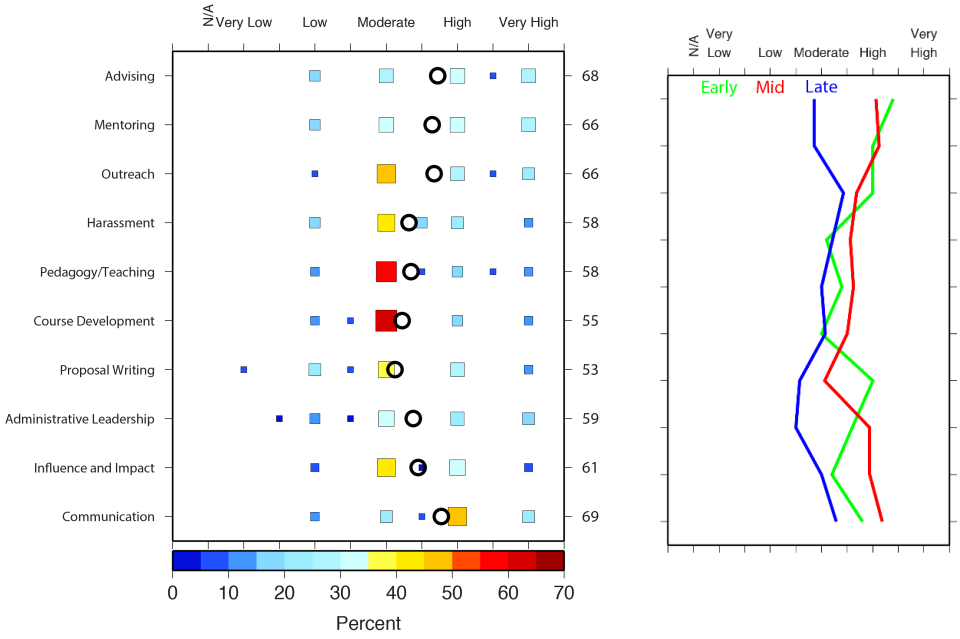


Figure 74. Survey responses regarding the interest in possible training or workshops**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Questions:¶

- 8) Rate the **importance** of the following skills you feel **our students** should have upon graduation.
- 9) Rate **how effective** we are at providing **opportunities to students** for the following skills.

¶

Purpose/Goals→ ¶

The purpose of this question is to identify which skill faculty feel GSO students should have upon graduation, and how effective we are at providing **opportunities to students** for these skills.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 75 & 76).

- Overall
  - ➢ soft skills and some capstone skills are rated higher than technical skills by about 20-30 rating points
  - ➢ very similar ratings for both student skills and faculty skills with the exception that some capstone skills (e.g., Teaching/Pedagogy, Course Development, Proposal Writing, and Leadership) are rated lower than for faculty.
  - ➢ advising-related skills also are rated lower
  - ➢ student opportunities to obtain soft skills and capstone skills are rated lower by 10 to 20 rating points,
  - ➢ technical skills opportunities are rated higher by about 10 rating points

- Trends
  - ➢ all career stages have similar responses for both student skills obtained
  - ➢ all career stages have similar responses for student opportunities

¶

Comments¶

Again, JEDI skills are important but I don't understand their context here. What are the specific skills that go along with this theme? Some skills seem discipline specific and I ranked those lower.

Should have some of those skills but not all.

The specific science technical skills will be rated differently based on research tools used.

These are all worthwhile skills.

Opportunities

I mentor my students in a lot of these skills but I think few do.

I think it would be valuable to document where we think these skills are taught/developed.

We don't really teach Computer Programming at GSO but there are courses at URI.

We don't provide formal training in Pedagogy; some grad students get on-the-job training as TAs.

¶

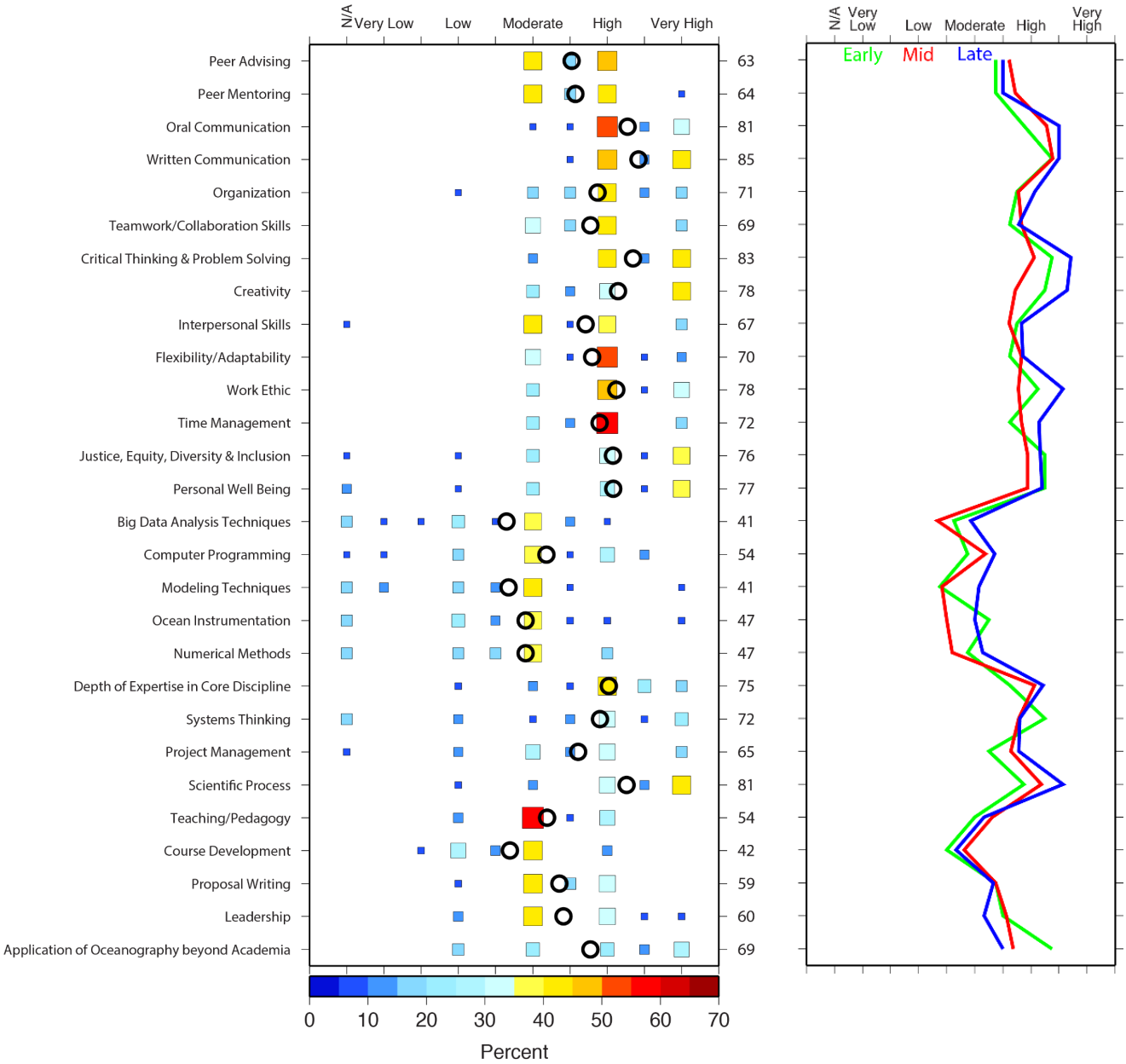
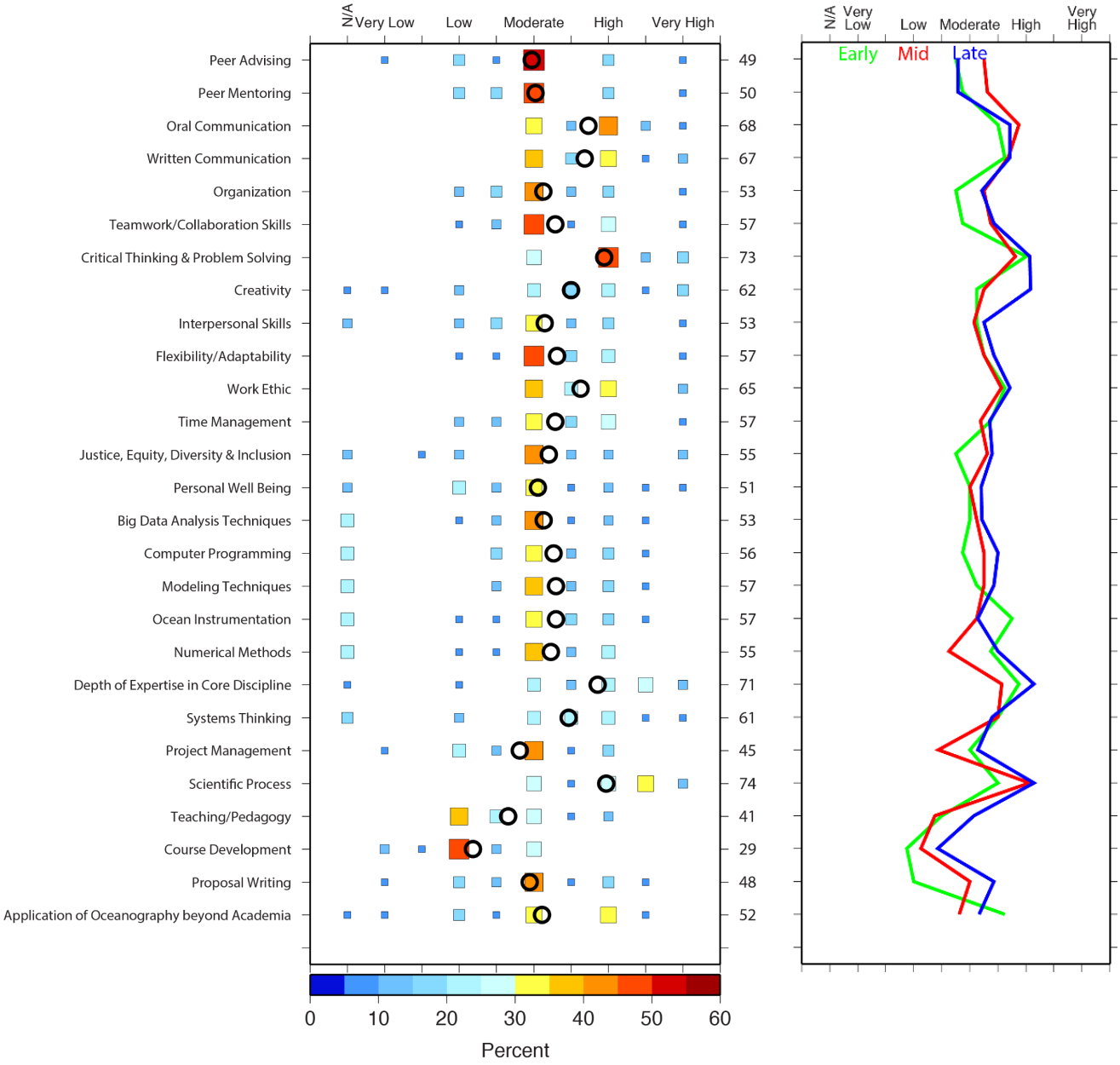


Figure 75. Survey responses regarding the **importance** of the following skills **students** should have**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.



¶

Figure 76. Survey responses regarding the **opportunity for students to obtain** the following skills**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Question:¶

- 10) What other skills not listed above do you feel are important or essential for your students?

¶

Purpose/Goals→ ¶

The purpose of this question is to identify any additional skills not listed that are important or essential for your students.

¶

Observations¶

Below is a list of preliminary observations based on open-ended survey comments.

- Overall
  - ➢ mostly additional soft skills and capstone skills suggested

¶

Comments¶

Self learning.
Managing work-life balance.
Interview skills.
Field techniques.
Lab techniques.
I think there is a lot more we could do to develop leadership mindset and confidence in our students.

¶

5.3 Research Facilitation¶

Question:¶

- 11) Rate the **importance** of the following in terms of **facilitating your research**.

¶

Purpose/Goals→ ¶

The purpose of this question is to determine the faculty's perspective on the importance of the various items/groups listed for facilitating their research.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 77).

- Overall
  - ➢ SRGA's are the highest rated group (95 rating), followed by Support Staff (67 rating) and Research Technicians (65 rating)

- Trends
  - ➢ roughly similar response trends for all career stages, though mid-career faculty rated Research Technicians higher and early-career faculty rated Support Staff lower and Equipment Development higher.

¶

Comments¶

It is not clear what is available for equipment development today.
CRC staff have helped a lot with purchasing, etc.
SRGAs and Office of Sponsored Projects are the key links.

¶

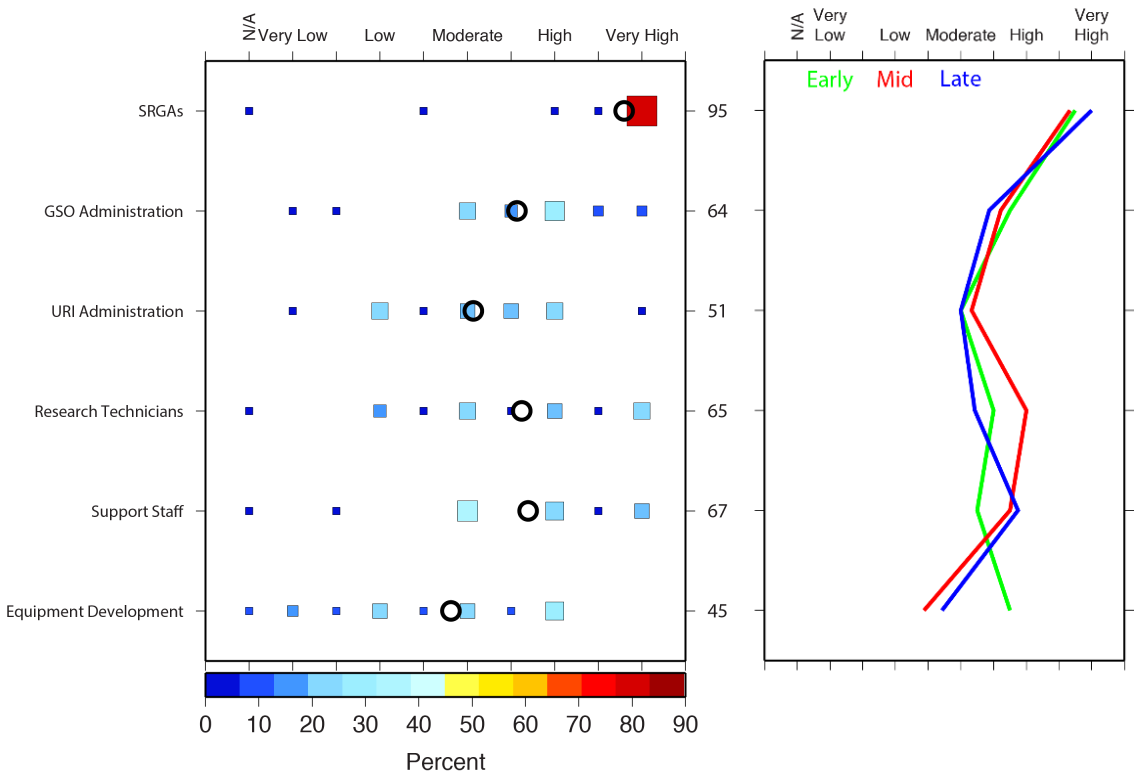


Figure 77. Survey responses regarding the importance of various entities in terms of facilitating your research. Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

5.4 Facilities and Services¶

Question:¶

- 12) Rate the quality of the various facilities/services on campus.

¶

Purpose/Goals→ ¶

The purpose of this question is for faculty to rate the quality of the various facilities/services on campus with the goal of identifying which ones may need attention/improvement.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 78).

- Overall
  - ➢ most facilities/services on campus are rated in the moderate to high range
  - ➢ highest rated facilities/services are Groundskeeping (69 rating), Shipping/Receiving (67 Rating), Security (66 rating), and Library (66 rating)
  - ➢ lowest rated facilities/services are Small Boats (31 rating), Classrooms (44 rating), and Instructional Support (46 rating)

- Trends
  - ➢ roughly similar response patterns for all career stages

¶

Comments¶

I heard there was a transition in groundskeeping since the pandemic so I'm not sure what to say about current groundskeeping. Also, shipping and receiving is high quality yet seems precarious with uncertainties in hazmat shipping support.

Maintenance has been very helpful.

We could use more regular computer support. The small boats facility needs a major upgrade. The grounds keepers are skilled but can hardly keep up with all the work.

Computer support is outstanding given the quantity of the team. Additional staff needed.

¶

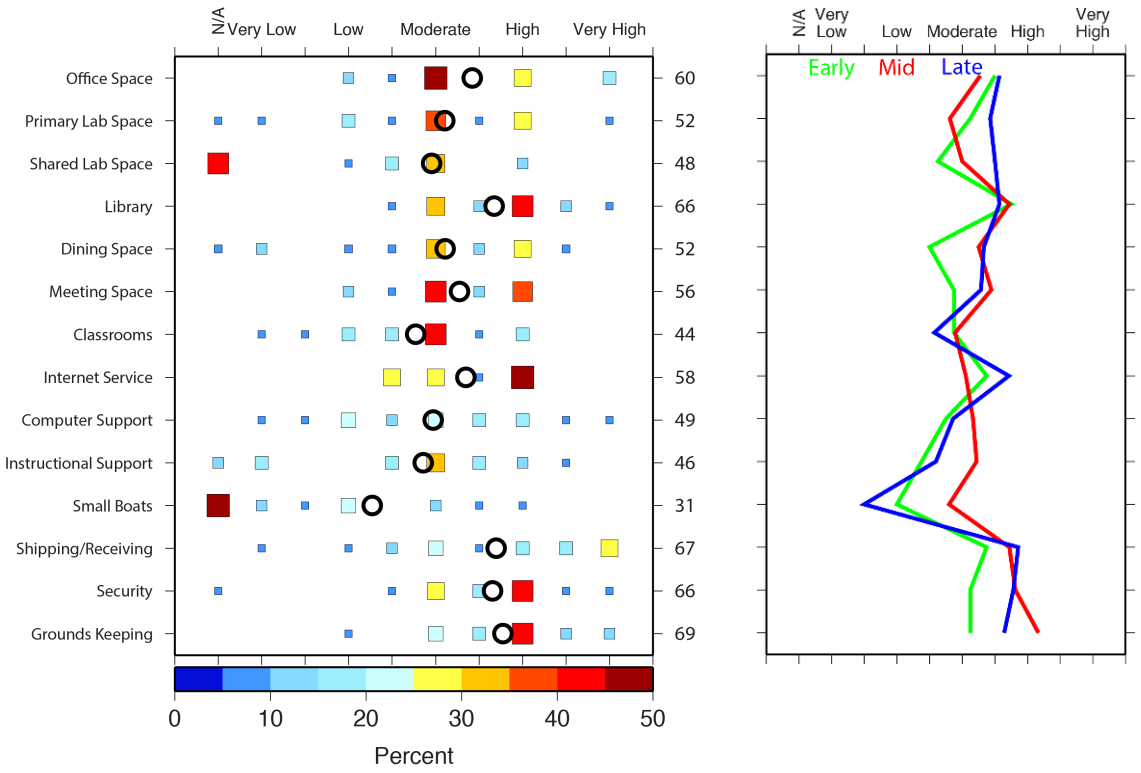


Figure 78. Survey responses regarding the quality of the various facilities/services on campus. Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Question:¶

- 13) Proposed improvements of facilities/services on campus.

¶

Purpose/Goals→ ¶

The purpose of this question is to receive input about potential improvements of facilities/services on campus.

¶

Observations¶

Below is a list of preliminary observations based on open-ended survey comments.

- Overall
  - ➢ Common topics include small boats, computer support, instructional space, overgrown relics, machine shop, social spaces, and food option

Comments¶

The small boat program will need significant development to enable bay related research and education. GSO is located at a perfect location for ocean instrumentation development but the small boat program is lacking to allow us to use the resources and testing playground in an efficient and productive way.

More food options on campus is a must. More social spaces for tea/coffee. Small boat facility would be great. So would a viable machine shop for making stuff.

Small boats: absolutely needs to be revamped and made important. It's painstaking to try and take a small boat out and such a shame! We have amazing study sites nearby. Grounds: Could really use some work! Lots of abandoned buildings and weed patches all over campus. It's a gorgeous campus! Even without a new building could demo a few relics and clean up the yard. Computer support: each building should have a printing area; there is no tech support for computers or printers.

We need improved infrastructure all around. More importantly we need instructional space that allows for up-to-date innovative and creative pedagogy. Right now I feel very limited in what can be done with instruction based on teaching facilities and resources. Honestly my kids have access to much better learning resources in their high school than we have on our campus. I also think dependable heating and cooling should be expected. There have been many interruptions and inability to work in university space due to basic facilities not working properly.

We could use more regular computer support to keep pace with rapid changes in computing and increasing demand for on-line forms. The small boats facility needs a major upgrade. The grounds keepers are skilled but can hardly keep up with all the work.

5.5 Undergraduate Teaching¶

Questions:¶

- 14) Rate your preference for our undergraduate offerings.
- 15) Rate your preference for the format or type of course you would prefer to teach at the undergraduate level.

¶

Purpose/Goals→ ¶

The purpose of these questions is to identify faculty-preference for undergraduate offerings and the type(s) of courses they would like to teach, with an eye toward potentially modifying/tweaking our undergraduate course offerings.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 79 & 80).

- Overall
  - ➢ not many highly rated options but slight preference for fewer large-capacity courses and more small-capacity courses
  - ➢ less than moderate interest in creating new programs (e.g., certificate, accelerated MS)
  - ➢ course formats ratings also are mostly in the low to moderate range with slight preference for "intro-level course with in-class activities" (65 rating) and possibly "upper-level, experiential or field-based" (56 rating)
  - ➢ low ratings for on-line courses (25 to 37 ratings)

- Trends
  - ➢ similar response patterns for all career stages for the undergraduate offerings preference
  - ➢ quite varied responses by the various career stages for the format of courses with a significant bi-modality of the individual responses (see Appendix C, question 15 in the Faculty-related Topics section)

¶

Comments¶

Maybe add a new track on ocean technology in conjunction with the ocean engineering department.

It seems odd to have GSO, but no undergrad oceanography major.

I really think we need to have a solid handle on demand and demographics that would be prepared for and have interest in any potential new programs before the investment in development is made.

I would like to see us offer a portfolio of undergraduate classes that speak to faculty strengths and speaks to fairness. Not everyone is suited for large classrooms and the recent hires should not have to carry that burden for the college.

I think that we could revamp the Oceanography minor to provide a structured sequence of Oceanography courses.

I think peer-based coaching and discovery-based learning are worth exploring.

Upper level courses with a mixture of in-class activities, field work, and labs.

¶

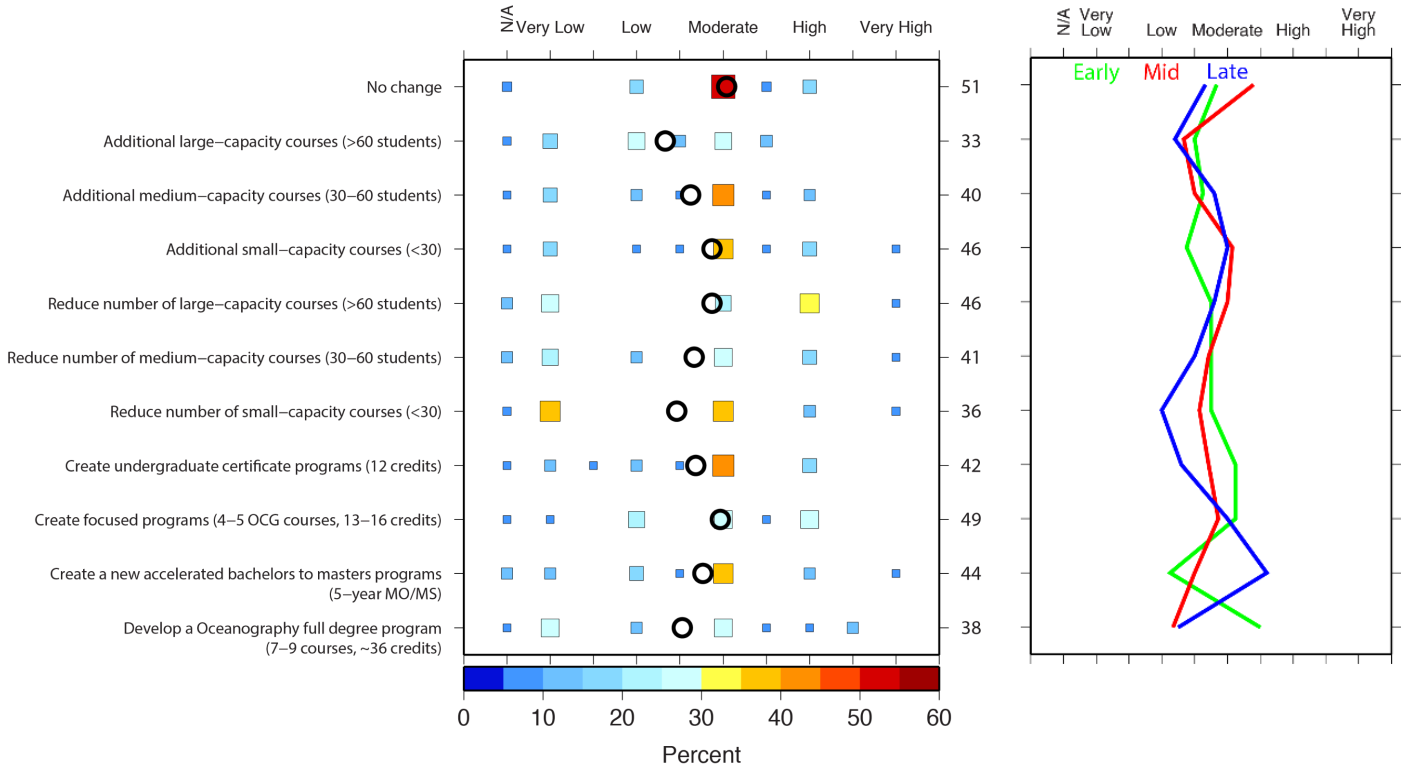


Figure 79. Survey responses regarding the preference for undergraduate offerings**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

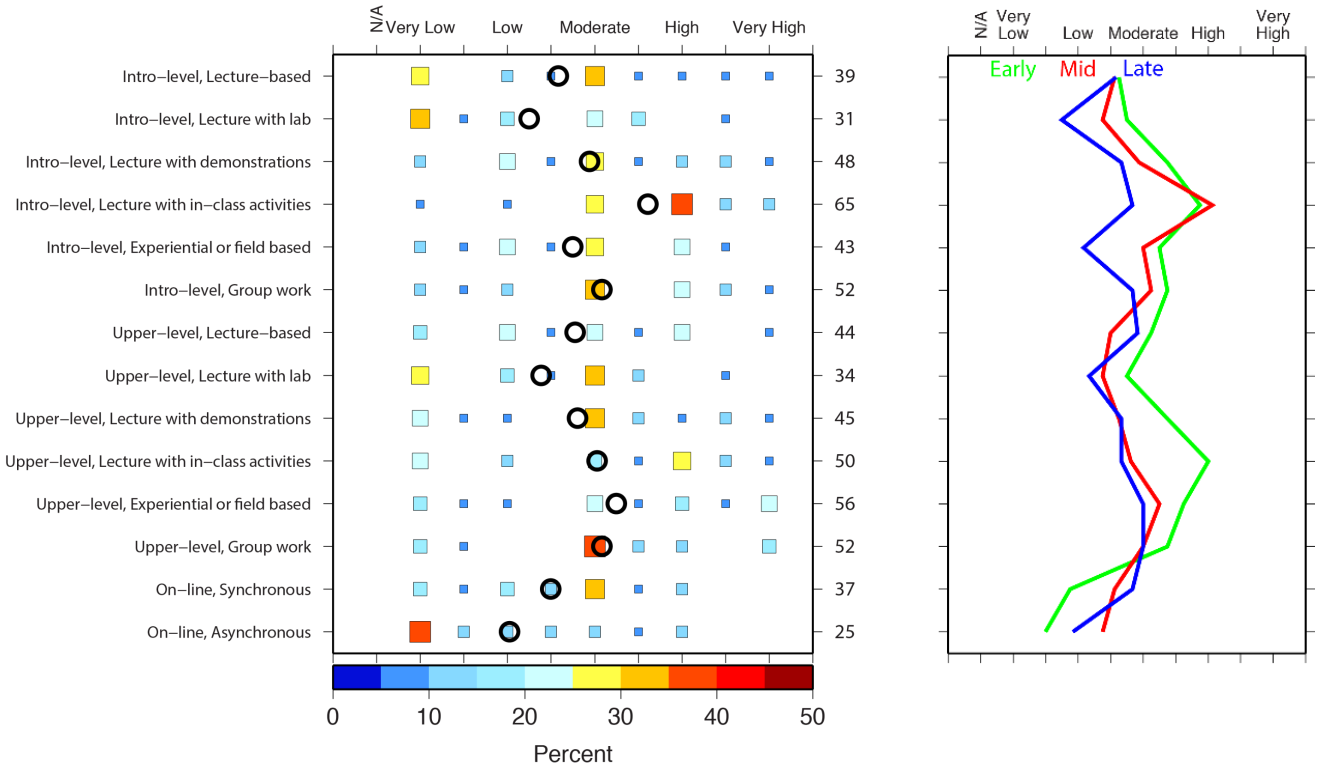


Figure 80. Survey responses regarding the format or type of course faculty would prefer to teach at the undergraduate level**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Question:¶

- 16) What sort of impediment(s) do not allow you to teach the format or type of course you desire?

¶

Purpose/Goals→ ¶

The purpose of this question is to identify any impediments faculty feel exist that do not allow them to teach the format or type of course they desire.

¶

Observations¶

Below is a list of preliminary observations based on open-ended survey comments.

- Overall
  - ➢ common impediments include facilities, teaching resources, time, and administrative "bean counting"

Comments¶

Time. I already teach a lot, and teaching at the undergrad level isn't really valued here, especially beyond our 1.5 courses a year goal.

No room to build new courses as the catalog is bogged down.

Facilities and teaching resources have been a limitation. It would be highly beneficial to have access to a wet laboratory with up to date AV technology on the main campus for undergraduate teaching. Even a room that has a sink and small storage space could make a big difference to enable the ability to do wet demonstrations. For graduate teaching, easier access to boats and wet facilities and computer resources could be a big improvement in what is possible.

Time.. priorities.

Limited time for admin and research.

Low enrollment can be an impediment for offering some classes.

bean counting of student numbers by GSO/URI administration

¶

¶

5.6 Teaching Formats¶

Question:¶

- 17) Rate your preferred teaching distribution for GSO Faculty with 1.5 courses/year expectations.

¶

Purpose/Goals→ ¶

The purpose of this question is to identify the preferred teaching balance/distribution between undergraduate and graduate courses for GSO faculty.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 81).

- Overall
  - ➢ predictably a greater preference for teaching graduate courses with highest rated option of "0.5 undergraduate, 1 graduate" (72 rating) and the lowest rated option "1.5 undergraduate and graduate as needed" (23 rating)

- Trends
  - ➢ similar response trends for all faculty career stages

¶

Comments¶

It would be nice if the 1.5 course per year limit were enforced as an upper limit. I teach more than this.

Whatever combination of undergraduate and graduate as preferred.

I think we should be considering each individual's instructional strengths and not be putting people in assignments that are not optimal for them - it just leads to burn out.

I don't understand why there has to be a set distribution.

Distribution needn't be the same for all faculty.

¶

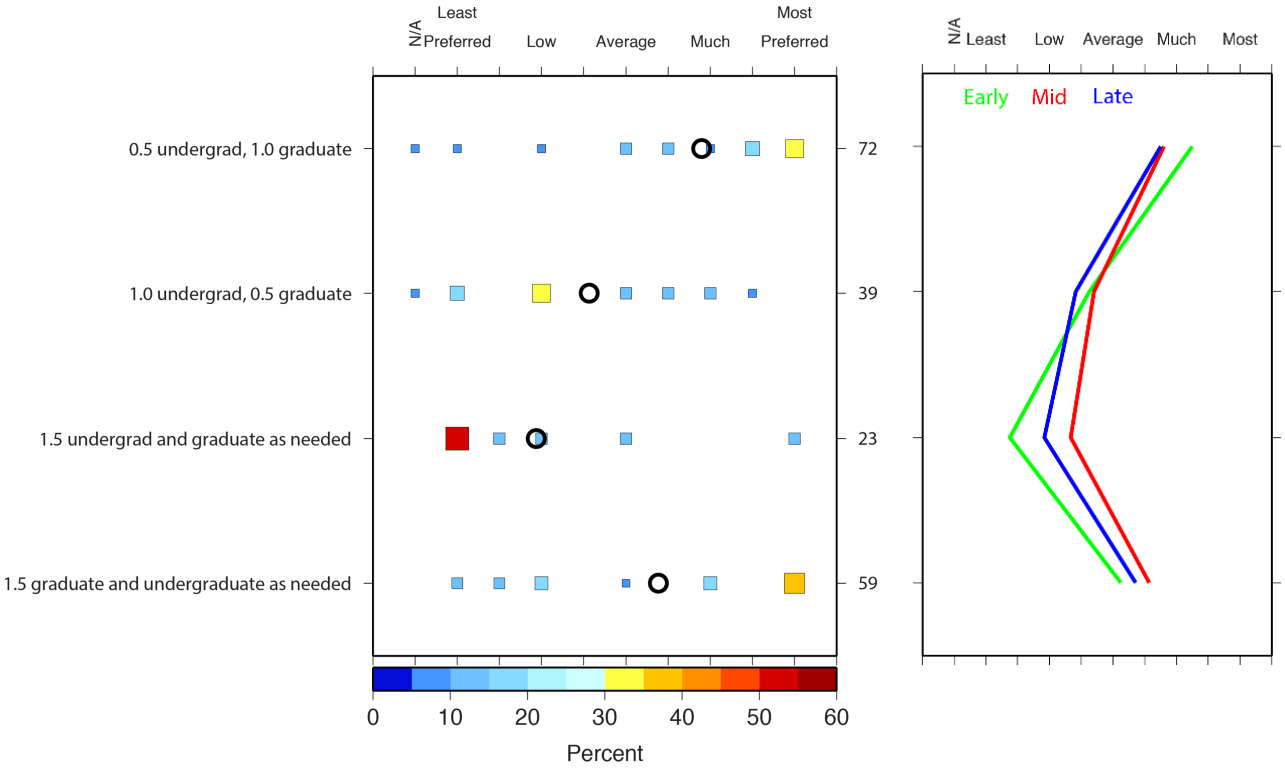


Figure 81. Survey responses regarding the preferred teaching distribution for GSO faculty with 1.5 courses/year expectations**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Question:¶

- 18) Rate your preference for the core course teaching model.

¶

Purpose/Goals→ ¶

The purpose of this question is to receive faculty input for various instructor models/scenarios for teaching the respective core courses. This question is also duplicated in the core curriculum survey for the purposes of testing response consistency and survey fatigue.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 82).

- Overall
  - ➢ roughly similar preferences for "keep it flexible and up to sub-discipline" (63 rating), "multiple instructors with same team rotating every 3-5 years" (62 rating), and "single instructor for 3-5 year, then rotated to new instructor"(61 rating).

- Trends
  - ➢ mid- and late-career faculty tend to prefer keeping it flexible, while early career faculty prefere a single instructor for 3-5 year, then rotated to new instructor option

¶

Comments¶

I can't state preferences for this for courses in general. Some courses require specific expertise that is limited to one faculty.

This really depends on the course and how often it needs to be delivered. Some courses are easily rotated while others only a particular individual is best suited to be the instructor.

Co-instructed with a new instructor rotating in and out of phase could work well.

I would have preferred a selection: Multiple instructors (e.g. 4 with a 4-yr commitment) with one of the instructors (rotated off each year and a new instructor rotated on).

¶

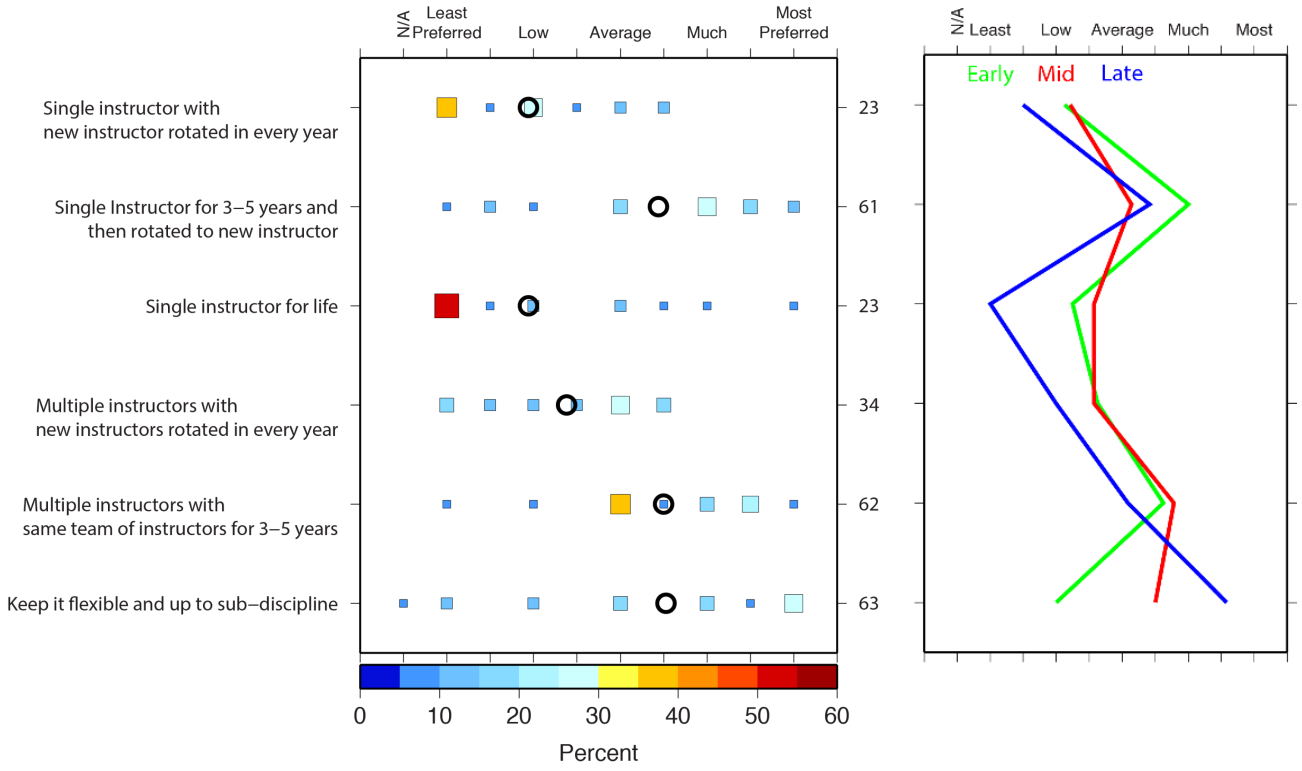


Figure 82. Survey responses regarding the preferred core course teaching model**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Question:¶

- 19) Rate how willing are you to adapt to new course formats and pedagogy.

¶

Purpose/Goals→ ¶

The purpose of this question is to gauge how willing faculty are to adapt to new course formats and pedagogy. The responses to this question is essential to determining if it is even worthwhile to move forward with modifying the curriculum.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 83).

- Overall
  - ➢ encouragingly, the faculty response ranges from moderate to very high with a mean rating of 75

- Trends
  - ➢ as might be expected, late-career faculty are somewhat less inclined to adapt to new course formats and pedagogy

¶

Comments¶

I'm very open to new formats but would appreciate support in developing and evaluating new modes.

¶

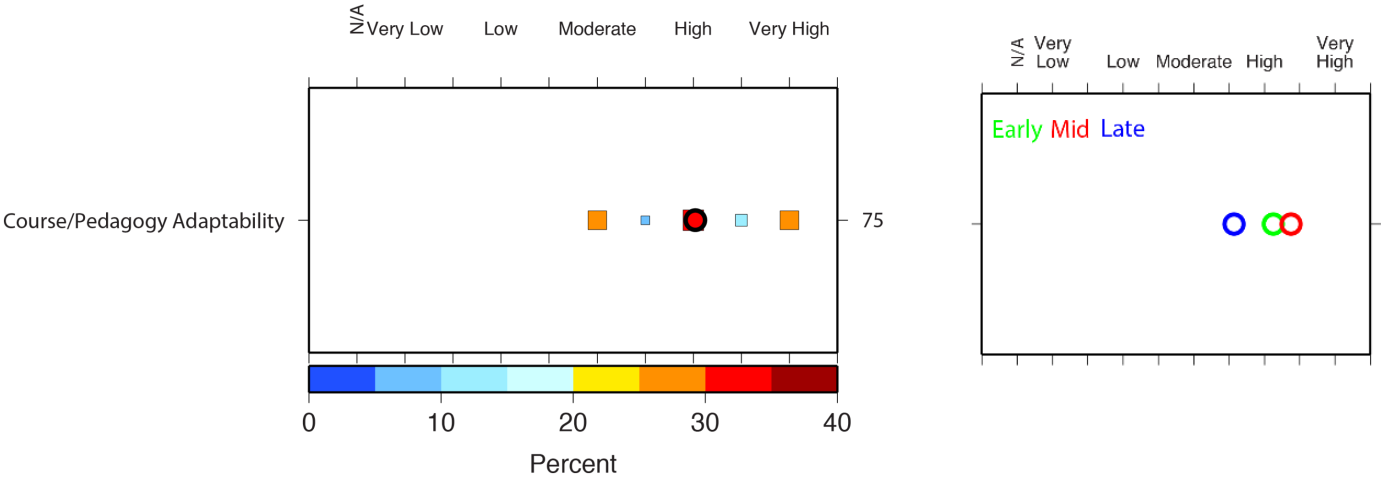


Figure 83. Survey responses regarding the preferred core course teaching model**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Question:¶

- 20) What resources or training do you need/want to adapt to new course formats and pedagogy?

¶

Purpose/Goals→ ¶

The purpose of this question is to receive input from faculty regarding any additional resources or training do you need/want to adapt to new course formats and pedagogy?

¶

Observations¶

Below is a list of preliminary observations based on open-ended survey comments.

- Overall
  - ➢ common responses include various types of pedagogical training, skill training, and on-line content development support

- Trends
  - ➢ prior to 2010, modal hire times were either "Prior to completion" or "Upon completion" of degrees

¶

Comments¶

Flipped classroom, inclusive teaching, active learning.
Mentoring workshop, JEDI strategies in the classroom workshop Course development workshop.
Substantive assistance with developing online content. E.g. a dedicated person whose job is to support course materials development.
Not sure.
It depends on the course at hand.
ATL (approaches to learning) training.
I think URI provides good support for pedagogy though it has mostly been pushing on-line instruction lately.
Can't answer, depends on the format and pedagogy.

¶

Question:¶

- 21) Rate how much input or autonomy do you feel you have in shaping the evolving curriculum.

¶

Purpose/Goals→ ¶

The purpose of this question is to assess the general feeling/sentiment that faculty will have input into shaping the evolving curriculum.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 84).

- Overall
  - ➢ an overall moderate rating (55 rating) and widespread responses for how much input/autonomy that faculty may have for shaping the curriculum

- Trends
  - ➢ early-career faculty indicate substantially lower rating compared to mid- and late-career faculty

¶

Comments¶

In MG&G, there is no "curriculum" that has been thoughtfully constructed by the group. Everyone just offers what they want or think their students need.

I feel like I can go rogue like many of the more senior faculty and offer what I want, but that is not the most responsible approach. Initially, I was trying to be highly conscientious team player in helping with the course delivery where needed and to fit into some sort of strategy to optimize student success - but this did not seem to jive well with the existing culture and lead to lots of frustration and feelings of alienation.

I think we need more curriculum coordination.

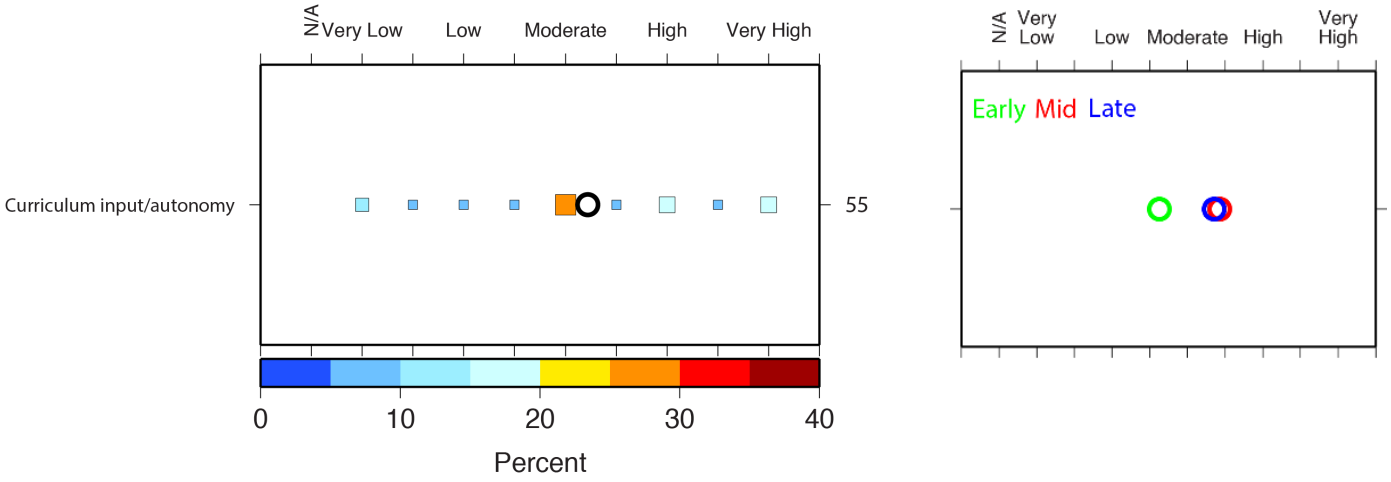


Figure 84. Survey responses regarding how much input or autonomy faculty feel they have in shaping the evolving curriculum**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

5.7 Advising and Mentoring¶

Question:¶

- 22) Rate the level of support, advising, and mentorship...

¶

Purpose/Goals→ ¶

The purpose of this question is to receive input from faculty about the level of support, advising, and mentorship they receive from their peers or give to their students and others at GSO.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 85).

- Overall
  - ➢ generally a moderate level of support, advising, and mentorship for peers and others (45 to 61 rating)
  - ➢ a high level of support, advising, and mentorship is reported for graduate students (80 rating)

- Trends
  - ➢ roughly similar patterns of responses for all faculty career stages

¶

Comments¶

I would like to give much more mentorship to my fellow colleagues, but there does not seem to be opportunities for it, and few seem to even express interest in me being part of the community. Things that I have tried to share have been dismissed over and over thus I've looked for outlets for this type of effort outside of URI. I do feel that I am able to influence a very high level of mentorship and support within my lab but that's about the extent of what I've perceived as possible at GSO.

¶

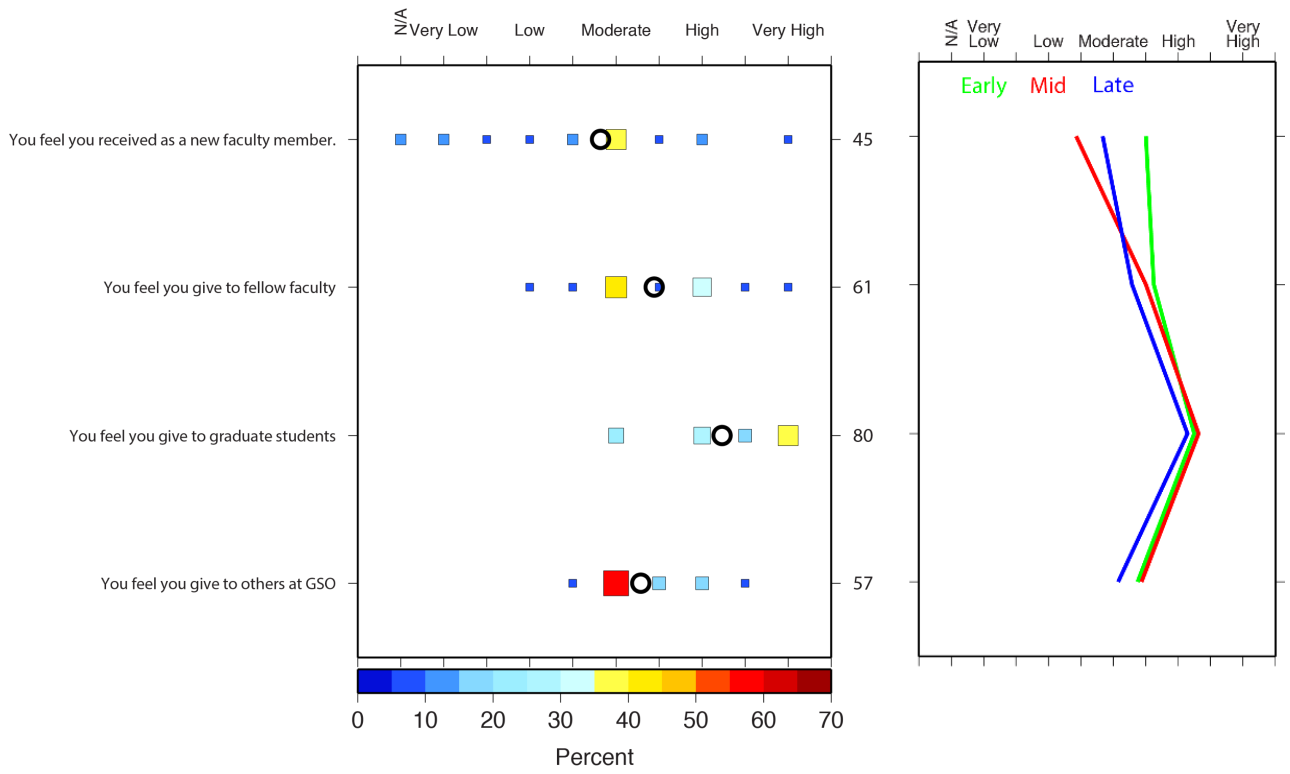


Figure 85. Survey responses regarding the level of support, advising, and mentorship**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Questions:¶

- 23) Rate the importance of your student advising role for the following.
- 24) Rate how effective you feel you are at the various student advising roles.

¶

Purpose/Goals→ ¶

The purpose of these questions is to assess the faculty's perspective on the importance and effectiveness of their student advising roles.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 86 & 87).

- Overall
  - ➢ highest importance ratings for Student Research (91 rating) and Manuscript Preparation (91 rating)
  - ➢ lower ratings for Social Networking beyond and within GSO (45 to 57 rating) and Navigating GSO (55 rating)
  - ➢ slightly lower ratings for effectiveness for Student Research (86 rating) and Manuscript Preparation (84 rating)
  - ➢ about the same ratings for effectiveness of Social Networking beyond and within GSO (49 to 61 rating) and Navigating GSO (53 rating)

- Trends
  - ➢ roughly similar patterns of responses for all faculty career stages, but slightly lower for early-career faculty members for academic-related activities

¶

Comments¶

Again, since I do not feel I am much of the social fabric of GSO, this has not been a strength for me in my advising of my students. I certainly direct them to others that have knowledge and access to resources that they need, but that is about the extent that I feel I am able to do.

All of the above apart from Social networking.

I do my best; students might be better judges of effectiveness.

¶

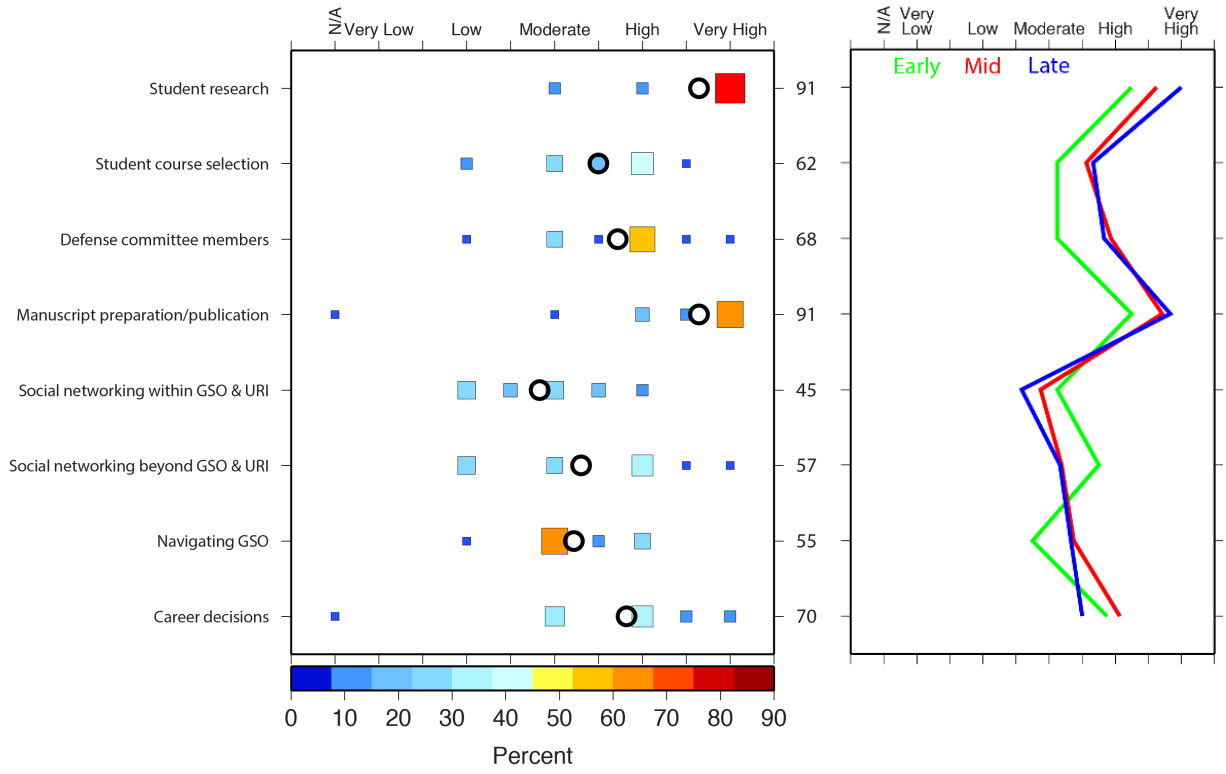


Figure 86. Survey responses regarding the importance of student advising for various situations**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

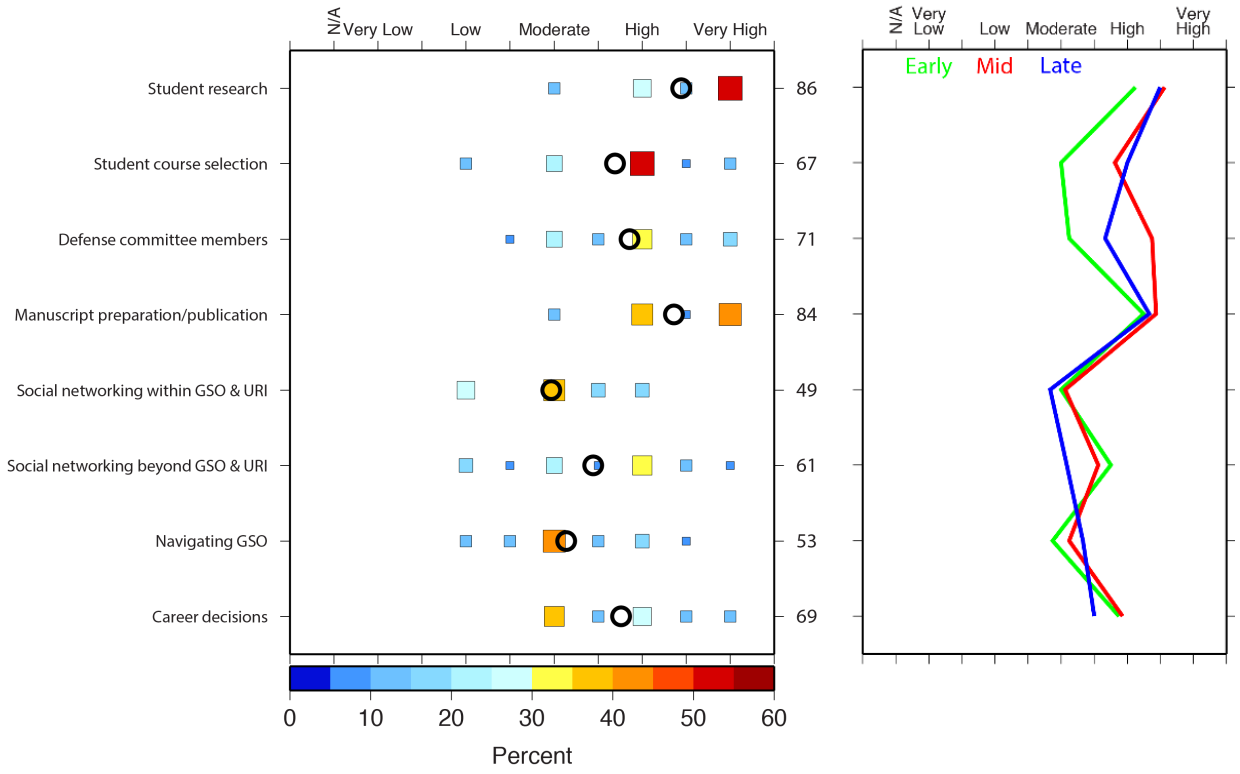


Figure 87. Survey responses regarding the effectiveness of respondent's student advising for various situations**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Questions:¶

- 25) Rate the importance of mentoring of students for the following roles.
- 26) Rate how effective you feel you are at the various student mentoring roles

¶

Purpose/Goals→ ¶

The purpose of these questions is to assess the faculty's perspective on the importance and effectiveness of their student mentorship roles.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Figs. 88 & 89).

- ➢ highest importance ratings for Manuscript Preparation (92 rating) and Student Research (89 rating)
- ➢ lower ratings for Social Networking beyond and within GSO (46 to 58 rating) and Navigating GSO (50 rating)
- ➢ slightly lower ratings for effectiveness for Student Research (85 rating) and Manuscript Preparation (83 rating)
- ➢ about the same ratings for effectiveness of Social Networking beyond and within GSO (45 to 55 rating) and Navigating GSO (50 rating)

- Trends

- ➢ roughly similar patterns of responses for all faculty career stages, but slightly lower for early-career faculty members for academic-related activities
- ➢

¶

Comments¶

These are all important.

Not sure how this is different from advising... so above was "direct""and this question is "guide"? I'm answering the same for both :)

I am also amazing at building confidence, belonging, perspective, mindset, and empowerment with the people that interact with me directly on a regular basis. However this emotional work is largely invisible.

I do my best.

¶

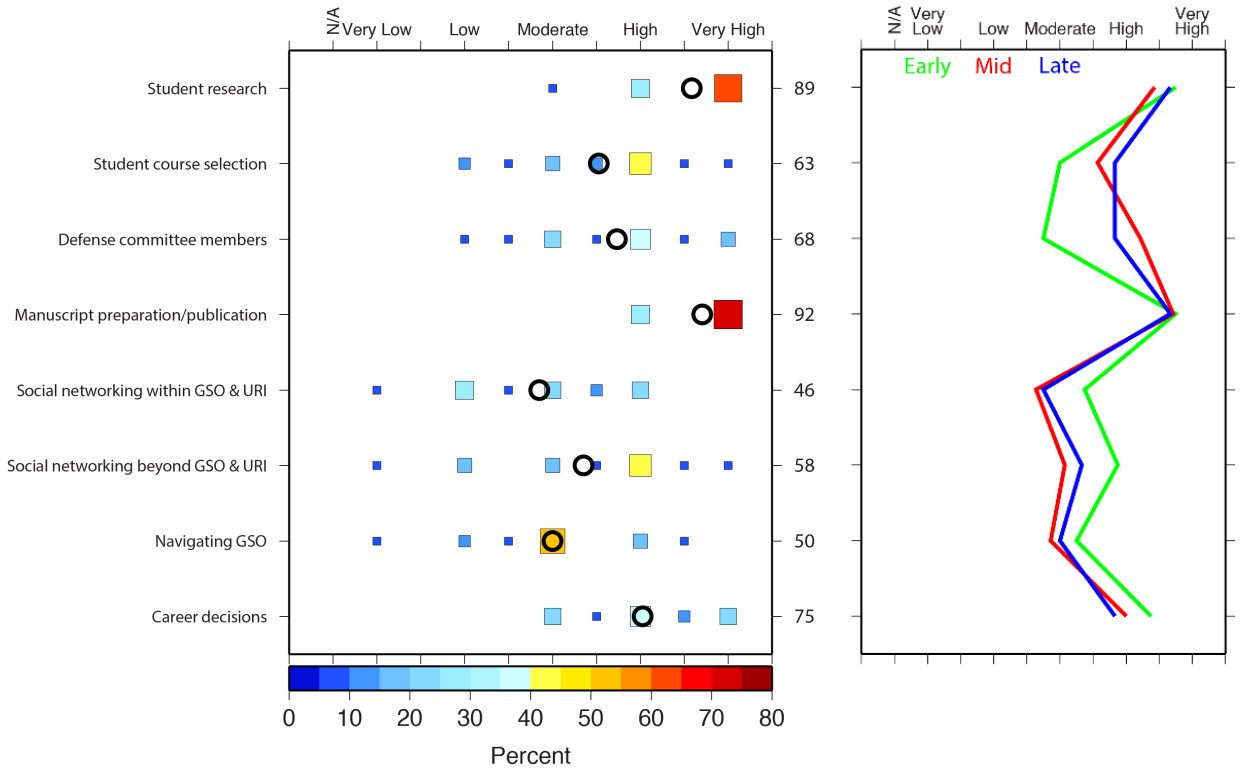


Figure 88. Survey responses regarding the importance of student mentoring for various situations**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

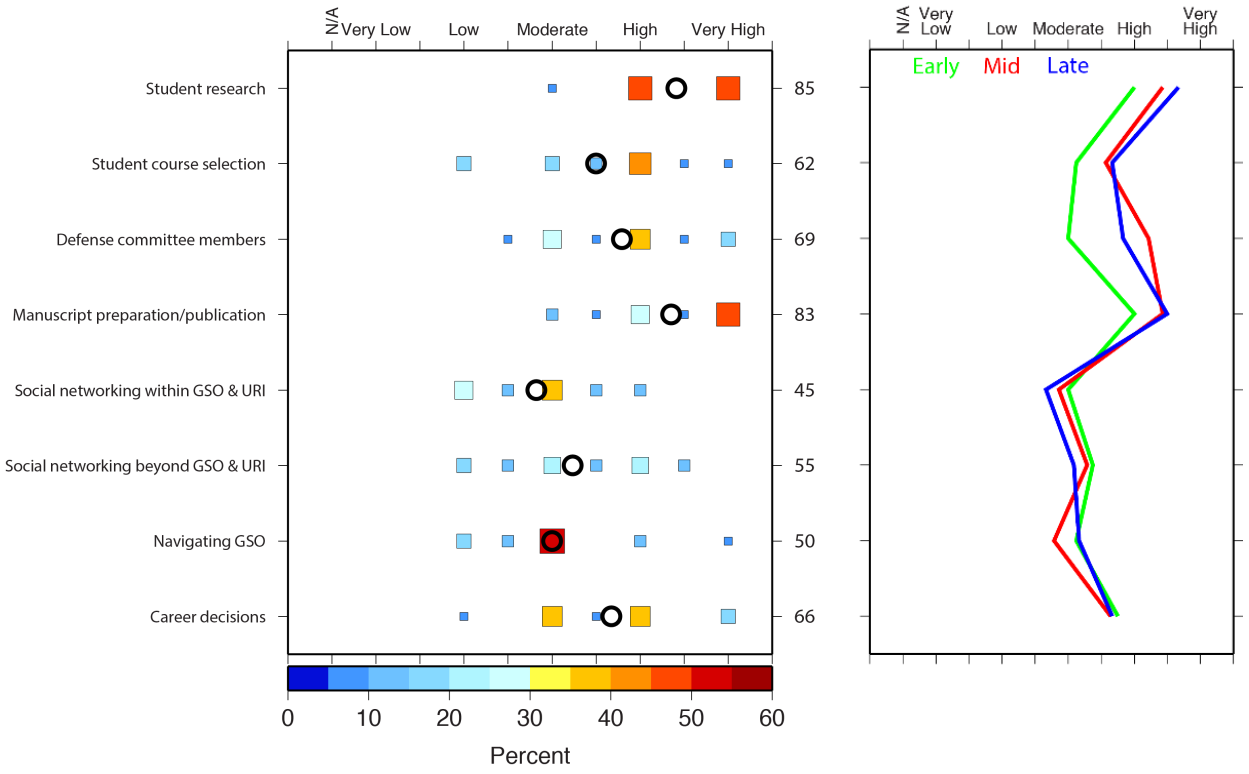


Figure 89. Survey responses regarding the effectiveness of respondent's student mentoring for various situations**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Question:¶

- 27) What do you feel are the perceived impediments to providing advising/mentoring to students?

¶

Purpose/Goals→ ¶

The purpose of this question is to get feedback from faculty about any possible impediments they feel exist for providing advising/mentoring to students.

¶

Observations¶

Below is a list of preliminary observations based on open-ended survey comments.

- Overall
  - ➢ common responses include time, training, and limited experience.

¶

Comments¶

Time to learn and practice.

Time and training.

There isn't an easy route to getting information about courses, degree progress, or networking within GSO.

I do not see any impediments with my own students. However, I see little opportunity with students that I do not officially advise. I do a lot of small group mentoring outside of GSO that is highly received, but invisible to GSO. I also do a good amount of group workshops on these aspects with URI's graduate school that have not been taken full advantage of by GSO students.

We are faculty with a limited frame of reference and experience.

The pandemic was certainly an impediment.

¶

Question:¶

- 28) What do you feel are the perceived impediments to receiving advice/mentoring from colleagues?

¶

Purpose/Goals→ ¶

The purpose of this question is to get feedback from faculty about any possible impediments they feel exist for receiving advising/mentoring from colleagues.

¶

Observations¶

Below is a list of preliminary observations based on open-ended survey comments.

- Overall
  - ➢ common responses include time, culture and limited personal interactions

- Trends
  - ➢ prior to 2010, modal hire times were either "Prior to completion" or "Upon completion" of degrees

¶

Comments¶

Not sure.
Everyone is too busy, it seems.
There does not seem to be a culture of mentoring junior colleagues within the senior faculty (honestly I have experienced anti-mentoring - dismissing ideas disparaging aspirations). I also do not see this aspect as valued in evaluations of our work, so there is little to no incentive/investment in it. I also see the administration as being behind in critical perspectives, mindset abilities, and awareness of mentoring.
Time and culture.
Limited frame of reference.
Limited personal interactions.

¶

5.8 Open-Ended¶

Question:¶

- 29) Rate how you feel we should proceed towards a successful review/revision of the curriculum.

¶

Purpose/Goals→ ¶

The purpose of this question is to identify how faculty feel we should proceed toward a successful review/revision of the curriculum. This question is also very similar to a question in the core curriculum survey and is used to gauge response consistency and survey fatigue.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 90).

- Overall
  - ➢ highest rated approaches are "dedicated faculty retreat" (71 rating), "pedagogy/curriculum workshops" (67 rating), and "allow sub-disciplinary groups to decide" (52 rating)

- Trends
  - ➢ generally similar trends for various careers stages, but somewhat lower rating by late-career faculty for "dedicated retreat", "allow administration to decide", and "pedagogy/curriculum workshops"
  - ➢ somewhat similar patterns for curricular groups, but largest departures for who

¶

Comments¶

At the very least a committee should decide. If it's left to curricular groups we will continue to have curricular groups, and those groups will continue to have disparate workloads.

I think this will take a series of events and longer-term investment/incentives not just one event and done.

Before any process begins buy-in is required from the Dean of Academic Affairs, Faculty, and Students.

¶

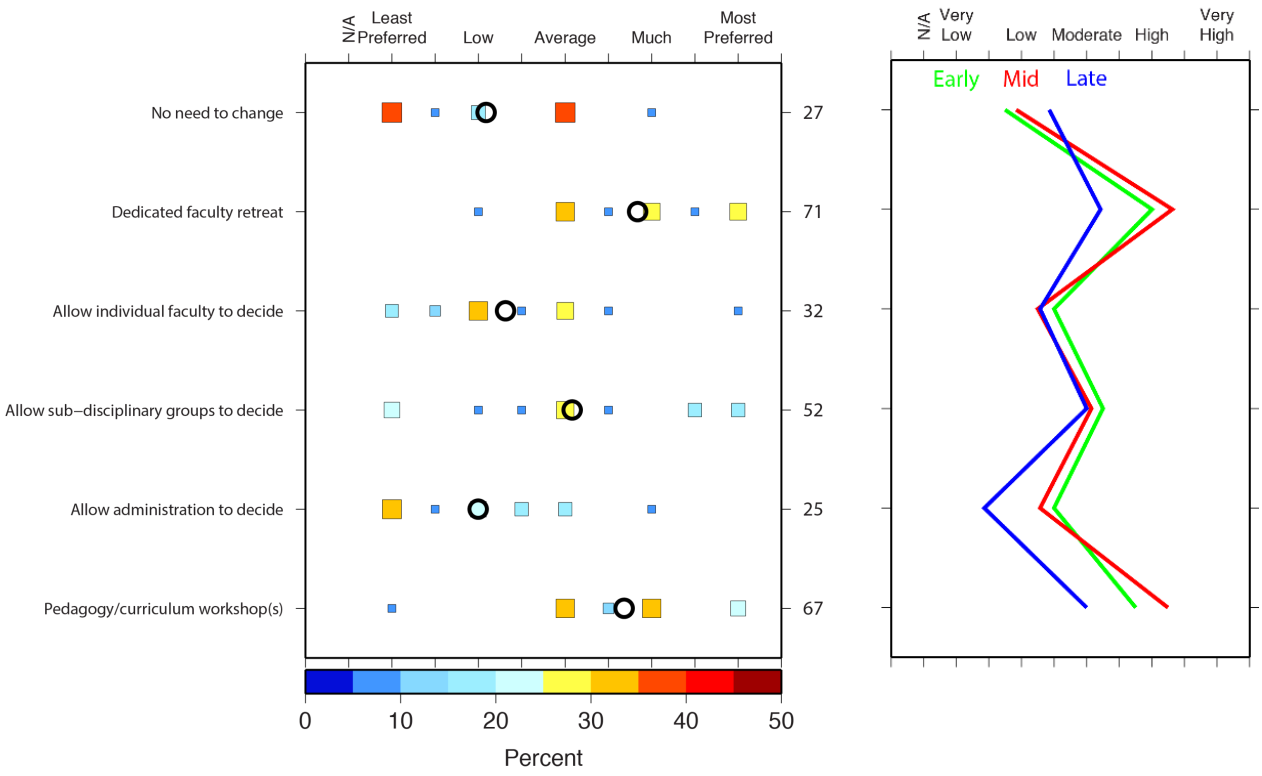


Figure 90. Survey responses regarding how faculty feel we should proceed towards a successful review/revision of the curriculum**.** Left panel are the response distributions and frequencies illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses within each row/core course. The mean of the scaled ratings for all responses are indicated as a black circle and the numerical value displayed to the right of the plot. Right panel compares the mean responses for self-described career status.

Question:¶

- 30) What things about GSO give you the most pride?

¶

Purpose/Goals→ ¶

The purpose of this question is to poll faculty for what gives them pride about GSO.

¶

Observations¶

Below is a list of preliminary observations based on open-ended survey comments.

- Overall
  - ➢ common responses include students, collegial atmosphere, community, research accomplishments

¶

Comments¶

Colleagues and students are awesome.
Collegiality campus and how wonderful the students are.
How much GSO has improved in research, teaching, and social impact beyond GSO and oceanography in the last 10 years; the 'recent' hires have a lot to do with that.
The research vessel and excellent colleagues.
There is a cohesive alumni community that is proud of GSO. I think there are a lot of excellent people who work here. GSO has accomplished a lot scientifically and has the potential to continue to do so. The regional community has high regard for GSO.
Students.. collegially.. vigor…
Students, collegial atmosphere.
Setting and people.
All our graduates and their accomplishments.
Realized potential for cross-disciplinary interactions. Sense of community.
To have the opportunity to work at one of the best research and education institutions in oceanography and apply science to address societal issues through collaborations with the Coastal Institute and Coastal Resources Center staff.
Research.

¶

Question:¶

- 31) What things about GSO frustrate you the most? Ya better not say "endless surveys."

¶

Purpose/Goals→ ¶

The purpose of this question is to poll faculty for what frustrates them about GSO.

¶

Observations¶

Below is a list of preliminary observations based on open-ended survey comments.

- Overall
  - ➢ common responses include reluctance to change, lack of diversity, mentorship issues

Comments¶

Road blocks to change (people or groups that feel stuck doing things because that's how they've always been done rather than committing to making improvements even if it causes disruption to the status quo). Lack of diversity among students, faculty, and staff and the fact that racism and prejudice still happens here (e.g. calling security on a black student for being in a building).

Fear of change Focus on buildings not people "Endless loop" discussions instead of action items Lack of willingness from some faculty to help with service social events and outreach.

Endless surveys and the effort we put into improving the place and then seeing no movement.

Not necessarily GSO but within URI. Sometimes there are too many rules to follow and sometimes no rules to follow.

The desire to keep things the way they have always been - complacency = atrophy; inability to evolve and grow. Less than optimal organization of the academic program. Lack of support, mentoring, and belonging amongst some individuals. Trying to be part of making positive change and being dismissed and pushed aside. Some students experience very poor mentorship and very little is done about it. Those that are conscientious end up doing an enormous amount of emotional work for the institution that is invisible, not recognized, and goes unappreciated. There are essentially no growth opportunities for faculty and staff. The leadership does not know their people in ways that allow them to make informed decisions about optimal opportunity placement.

Motivation for change.

The move to new proposal management system that seems to add workload to PIs and SRGAs insecurity about SRGA support from administration purchasing hiring shipping red tape.

Longstanding failure to pivot toward the world of today and tomorrow rather than the oceanographic world of the 60s and 70s.

Can't think of any.

Committee work.

Seemingly endless surveys.

The most frustrating thing would be endless surveys without follow-up actions!

Inertial for solving problems and making repairs.

6. Supplemental Observations

6.1 Core Course Scenarios¶

Questions:¶

- 3) Rate your preference for various core course scenarios.

¶

Purpose/Goals→ ¶

The purpose of these questions is to gauge faculty preferences for various designs/scenarios of the core courses ranging from no change and slight modifications to significant modifications.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 91).

- Overall
  - ➢ survey results suggest a preference for the "Slight Modification" scenario (64 rating) in which the core courses remain but with increased integration and interdisciplinary content
  - ➢ another somewhat popular option is the "Significant Modification III" scenario (57 rating) in which the core courses are replaced by a two-semester, expanded overview course that encompasses all of the core courses

- Trends
  - ➢ comparison of the survey results for the various curricular groups indicates similar preferences for CO and GO groups and for BO and PO groups
  - ➢ CO and GO groups prefer the "Significant Modification III" scenario, while the BO and PO groups prefer the "Slight Modification" scenario
  - ➢ PO group gives the highest preference for the "No Change" option

¶

Comments¶

I prefer a model that has less total semester time to complete the core courses.

If the core courses continue to occupy four semesters we may as well require the four core courses with more integrated curricula.

I prefer a two semester course and have other "core classes" be more advanced intros to specific areas. I would then allow each curricular group to select what they want beyond the 2 semester intro.

The key is a review course that all students take, no opt outs. This builds a cohort and makes sure all people have some commonality ending year 1. Makes a part of comps clearer, as testing on this material is common between all students.

SigModII is appealing because it would allow us to offer a higher level "core" to all students including MO and then go into greater detail for MS/PhD students with the "any 2 core". Currently, it is a genuine struggle to train thesis students for research and bring the MO students, who usually lack the prep., along.

¶

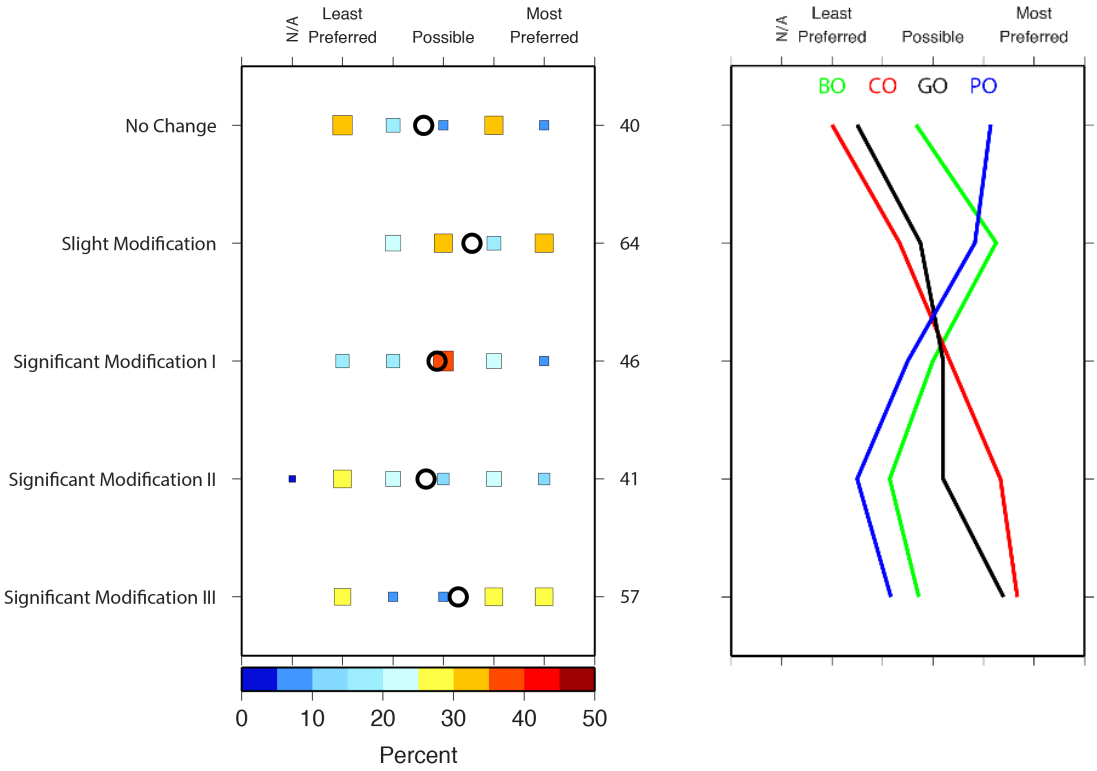


Figure 91. Survey results for various core courses scenarios all responses (left) and by curricular group (right). Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot.

Questions:¶

- 4) Rate your preference for core course requirement scenarios

¶

Purpose/Goals→ ¶

The purpose of these questions is to gauge faculty preferences for core course requirements as a function of curricular group and degree path.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 92).

- Overall
  - ➢ survey results for various provided core course requirement options are quite varied overall
  - ➢ lowest overall rated option is "No Change" (33 rating)
  - ➢ most all curricular groups prefer that MO students should have unique requirements (57 rating) compared to PhD and MS students

- Trends
  - ➢ BO and CO groups have somewhat similar responses and lean toward uniform core course requirements for PhD and/or MS students
  - ➢ GO group prefers updated requirements for individual groups
  - ➢ PO leans toward "no Change" or separate requirements for the individual curricular groups

¶

Comments¶

I think the number of core courses should be the same across PhD or MS students across disciplinary groups but the exact courses should depend on the person.

It's probably unrealistic for MS and PhD students of all curricular groups to have the same core course requirement because of limited time for MS students.

I prefer two interdisciplinary courses for everyone. Curricular groups decide what else is required.

If common content from the 4 core courses is condensed into a 1 or 2 semester offering, it seems all students could take these.

MO students should not be required to take the "any 2 other core". Their requirements should be the 2 semester overview.

MO - 2 semester expanded overview plus two OCG courses. MS - 2 semester expanded overview plus two sub-disciplinary courses NOT taught by their major professor. PhD - 2 semester expanded overview plus two OCG courses outside of their sub-discipline.

¶

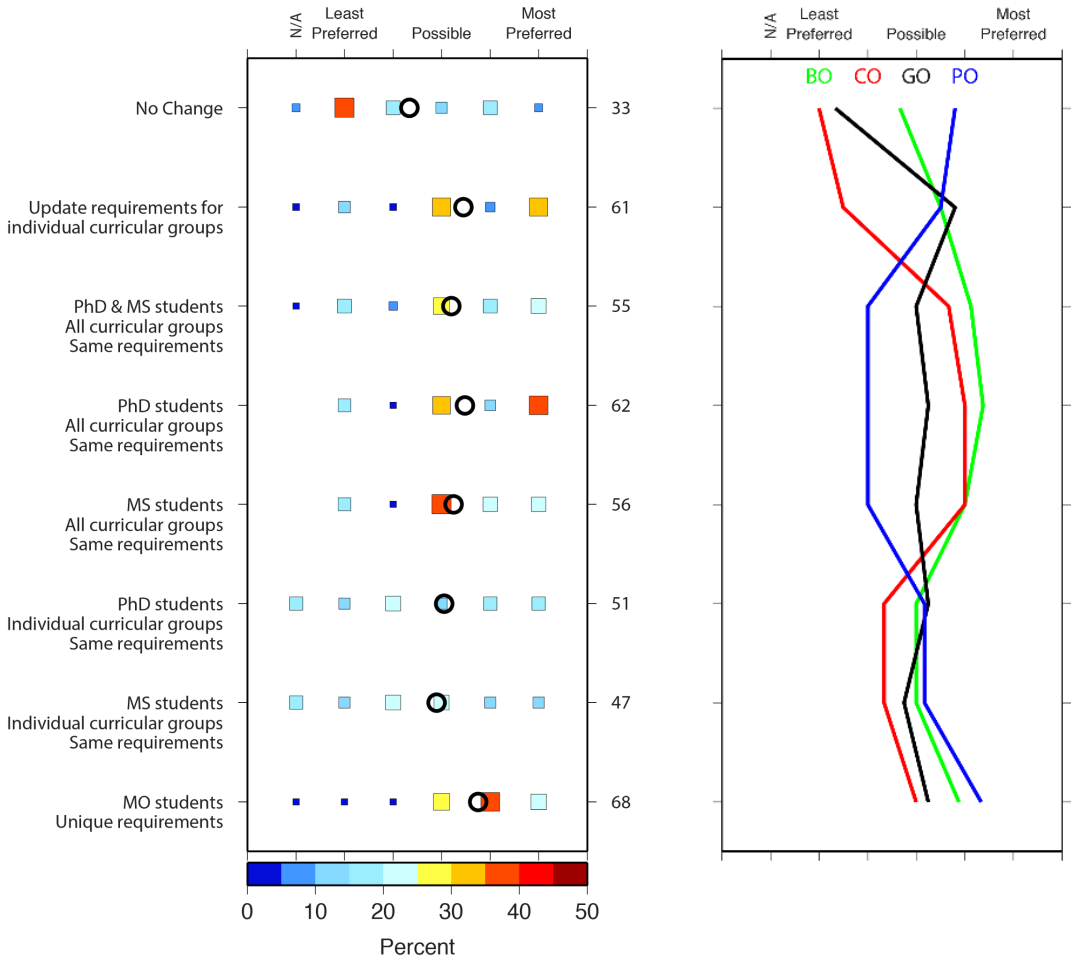


Figure 92. Survey results for various core courses requirement scenarios for all responses (left) and by curricular group (right). Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot.

Questions:¶

- 4) Rate your preference for core course requirement scenarios

¶

Purpose/Goals→ ¶

The purpose of these questions is to gauge faculty willingness to assist with the needed modifications for the various core course scenarios.

¶

Observations¶

Below is a list of preliminary observations based on survey results (Fig. 93).

- Overall
  - ➢ most responses are in the "Possible" range with slightly higher ratings for "Slight Modifications" (52 rating) and lower ratings for "Significant Modifications II" (41 rating)

- Trends
  - ➢ BO and PO groups have similar patterns of willingness that decrease with increasing levels of modifications
  - ➢ GO group appear to be the most willing to assist with all scenarios
  - ➢ CO group is most willing to assist with scenarios with higher need of modifications

¶

Comments¶

No comments provided.

¶

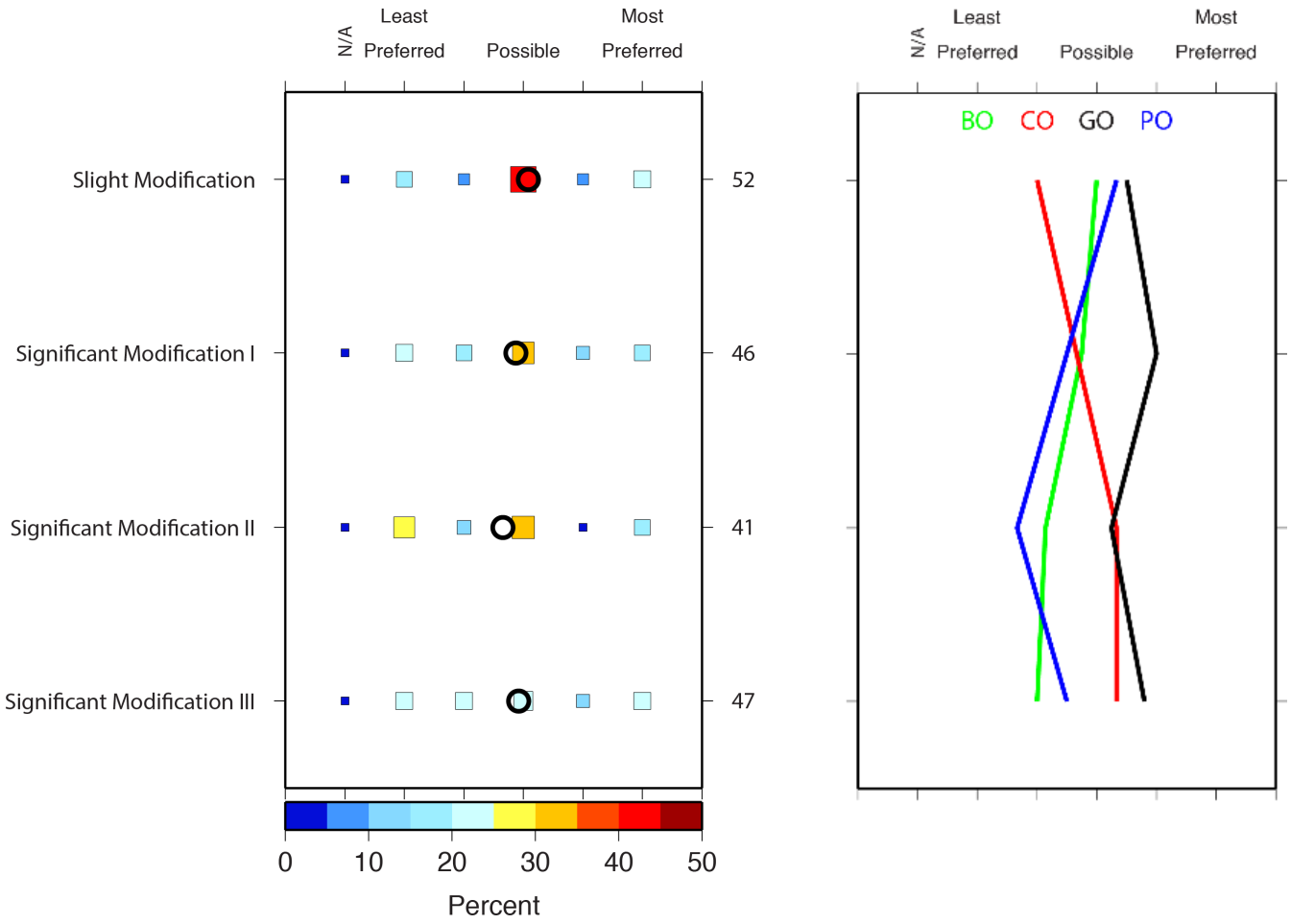


Figure 93. Survey results for faculty willingness to assist in the development in various core course scenarios for all responses (left) and by curricular group (right). Response distribution and frequency are illustrated as heat maps with the color and size of square symbols corresponding to the frequency of responses with the mean of the scaled ratings for all responses indicated as a black circle and the numerical value displayed to the right of the plot.