Curriculum Review:
Analyzing Curriculum Mapping Data

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Table of Contents

Presenting Curriculum Mapping Data

There are numerous ways in which curriculum mapping data can be presented. Please do not feel limited to the examples and suggestions found in this handout as they are meant to be starting points. Other ways of presenting data that are applicable to your discipline may be used as well. The goal is to present data in a format that makes them clear and easy to understand.

The number and variety of charts you create will depend on your guiding questions, as well as time and interest. Using your guiding questions as a starting point will help you to narrow down the charts that will be most informative for your curriculum review.

In addition to individual course maps, aggregate charts that we have found to be particularly useful for most groups are the bar chart summarizing the number and depth of course outcomes per program-level learning outcome (PLO) for required courses (found on p. 14), a similar chart showing course outcomes to PLOs for all courses (p. 16), a chart showing the required courses in a program and depth of PLO (p. 18), and a chart showing all courses in a program and depth of PLO (p. 19). We have included a table on page 30 to help you with your planning.

Analyzing an Individual Course

First Level of Analysis
The chart below is an example of how an introductory interdisciplinary course for instance can be mapped to the program-level learning outcomes (PLOs) of a program using a paper-based method of curriculum mapping. Data is presented in a chart showing the alignment of the course outcomes for this course to the PLOs.

Introductory course in Interdisciplinary Studies: Technology and Society (full-year course)

PLOs ▶	Knowledge of theories and concepts	Apply knowledge & skills in different contexts	Evaluate qualitative info	Evaluate quantitative info	Communicate orally and in writing	Critical thinking	Design and implement research	Ethical understanding
Understand the foundations of interdisciplinary studies and its methods	D	I				I		
Understand a range of disciplinary perspectives that influence how we think about, talk about, and use technology		I						
Develop competence in reading and interpreting research			I	I				
Develop competence in oral and written expression					I			
Reflect critically on how knowledge is produced about technology.	D	I			I	I		

Course outcomes ▲

I = Introduced: Key ideas, concepts or skills related to the learning outcome are introduced and demonstrated at an introductory level. Instruction and learning activities focus on basic knowledge, skills and/or competencies and entry-level complexity.

D = Developing: Learning outcome is reinforced with feedback; students demonstrate the outcome at an increasing level of proficiency. Instruction and learning activities concentrate on enhancing and strengthening existing knowledge and skills, as well as expanding complexity

A = Advanced: Students demonstrate the learning outcome with a high level of independence, expertise and sophistication expected upon graduation. Instructional and learning activities focus on and integrate the use of content or skills in multiple levels of complexity.

Adapted from California State University, Long Beach (n.d.) and Veltri, Webb, Matveev & Zapatero (2011).

Description:

The map is a matrix showing the alignment of course outcomes from one course to program-level learning outcomes (PLOs). The PLOs are listed across the top. Often they are abbreviated or summarized in a few words, as shown in the example, and then listed in full elsewhere in the document. The course outcomes are listed down the left-hand side, and can also be abbreviated and then listed in full below.

The instructor for the course has looked at each course outcome, and determined which of the PLOs it is associated with. Where there is alignment, the instructor has decided what the expectation is regarding the level of student learning.

The resulting map shows the alignment of course outcomes to PLOs at a glance.

Teaching and Learning Activities:

Lectures, readings, discussions, individual study, group activities, active learning strategies

Student Assessments:

First term: Participation, research assignment, first draft of essay, essay, presentation
Second term: Participation, research assignment, first draft of essay, essay, presentation, final exam

Program-level Learning Outcomes:

By the end of the program, students will be expected to:

1. Develop a knowledge base of theories and concepts within their primary area of study.
2. Apply knowledge and skills in a variety of contexts, including situations that are new to the student.
3. Locate and critically evaluate qualitative information.
4. Locate and critically evaluate quantitative information.
5. Formulate and communicate orally and in writing arguments based on information, theories, and concepts.
6. Use different approaches to solving problems using well established ideas and techniques within the discipline.
7. Conceptualize, design, and implement research for the generation of new knowledge or understanding within the discipline
8. Demonstrate an ethical understanding of the discipline (Adapted from Council of Ministers of Education, 2007).

Course Outcomes:

By the end of this course, students will be expected to:

1. Understand the foundations of interdisciplinary studies and its methods.
2. Understand a range of disciplinary perspectives that influence how we think about, talk about, and use technology.
3. Develop competence in reading and interpreting research.
4. Develop competence in oral and written expression.
5. Reflect critically on how knowledge is produced about technology (Adapted from Oliver, n.d.)

Discussion Questions:

1. What observations do you have about the alignment chart?

2. What steps might be taken to improve and align the course?

3. How might an individual instructor use a map such as this one to improve a course (and thereby the program)?

Questions to Analyze Individual Course Maps

Course outcomes and expectations of student learning:
- Are course outcomes clearly articulated?
- Do they articulate what the course is actually about? Do they state what is important about the course? Are revisions needed? Is anything missing?
- How well do course outcomes align with PLOs?
- Is the scope of the course reasonable given the time constraints (number of credits)?

Teaching and learning activities (TLAs):
- To what extent do teaching and learning activities (TLAs) facilitate student learning of the course outcomes?
- Do TLAs emphasize factual recall only, or are students also challenged with activities that include critical thinking, application and/or analysis?
- Is there sufficient variety in the course or does it rely heavily on one approach?

Student assessments:
- To what extent do assessments facilitate student learning of the course outcomes?
- To what extent do student assessments measure what students know regarding course outcomes? In other words, how valid are the student assessments?
- Do the assessments emphasize factual recall only, or are students also challenged with assignments that include critical thinking, application and/or analysis?
- Do the assessment weightings reflect the degree of work required and the importance of the work?
- Is there sufficient variety in the assessments to allow students to demonstrate their understanding in different ways, or does the course rely heavily on one approach?
- How and when are you providing feedback to students?

General:
- What changes need to be made to the course?
- Does the course focus on what is important?
- What is memorable about the course?
- Is the content accurate and up to date?
- In what ways have you incorporated mental health and wellness in the course design? For example, is the amount of work in the course reasonable for students? For the instructor?

In context with other courses:
- Does the course fit within the context of the program? How well does it fit in with the sequence of other courses in the program?
- Are expectations of student learning progressing with subsequent courses?

Analyzing Aggregate Charts

Second Level of Analysis

The second level of analysis occurs at the program level once the aggregate charts have been created. They prompt you to think about curriculum from a program perspective, rather than on a course by course basis. By examining how the courses fit together you can begin to see trends, gaps, and overlap. They can be used as an important source of evidence to inform curriculum discussions and decisions.

Analyzing Course Streams

	Disciplinary Knowledge	Apply knowledge & skills in different contexts	Evaluate qualitative info	Evaluate quantitative info	Communicate orally and in writing	Critical thinking	Design and implement research	Ethical understanding
COURSE #202								
Course Outcome #1	D	I	D					I
Course Outcome #2	D		A			D		
Course Outcome #3	D		D		D			
Course Outcome #4								
Course Outcome #5	A	D	A			A		
COURSE #302								
Course Outcome #1	I	I	I			I		
Course Outcome #2	I	I			D			
Course Outcome #3	I	I	I					
Course Outcome #4	I	I			D	I		
COURSE #402								
Course Outcome #1	D		D			D		
Course Outcome #2		D			D	D		
Course Outcome #3	A		A		D	A		
Course Outcome #4	D	A	D		D	A		D
Course Outcome #5	D		D			D		

Description:

Once the courses in a program have been mapped, you can select certain ones and compile them in a chart to examine trends. The following example could be used to examine how course outcomes relate to PLOs for three courses in a stream, such as an introductory, intermediate, and advanced course on a specific topic. We will assume that #202 is a prerequisite for #302, and #302 is a prerequisite for #402. A header is used to separate the course outcomes for the three courses, which are listed down the left side.

This map is used to tell at a glance the extent to which program-level learning outcomes (PLOs) are being emphasized and where within a stream of courses. It also demonstrates how student learning progresses and is scaffolded within the stream.

Questions to Analyze the Chart:

1. What general trends do you see in the data?

2. Where is the emphasis in the stream? What PLOs are being most/least emphasized?

3. How could student learning be enhanced through changes to:
    *   Course sequence?
    *   Emphasis of specific PLOs?
    *   Scaffolding of student learning?
    *   Expectations of student learning (I, D, A)?

4. How might this type of chart be useful for your department or faculty when analyzing curriculum mapping data?

Analyzing Multiple Sections of a Course

	Disciplinary Knowledge	Apply knowledge & skills in different contexts	Evaluate qualitative info	Evaluate quantitative info	Communicate orally and in writing	Critical thinking	Design and implement research	Ethical understanding
COURSE #201 Section 1								
Course Outcome #1	I	D			D	D		
Course Outcome #2	I		D		D	D		
Course Outcome #3	I	I			I	I		
Course Outcome #4	I	I	D		D	D		
Course Outcome #5	I				D	D		
COURSE #201 Section 2								
Course Outcome #1	I		I			D		
Course Outcome #2	I		I			D		
Course Outcome #3					D			
Course Outcome #4	I	D			D			
COURSE #201 Section 3								
Course Outcomes	No Data							
COURSE #201 Section 4								
Course Outcome #1	D	D						I
Course Outcome #2	I	I		I	I			
Course Outcome #3	D	I						
Course Outcome #4	D	I						I
Course Outcome #5	D	D						
Course Outcome #6				I	I			
Course Outcome #7	A	D						I
Course Outcome #8	D	D		I	I			D

Description:

There may be times when you want to analyze multiple sections of a course to evaluate consistency in expectations of student learning across sections, particularly salient for courses that are a prerequisite for subsequent courses in the program. Large discrepancies of expectations for student learning between sections could be a factor for student success within the course itself and/or future courses in the program.

This chart demonstrates the alignment between course outcomes for multiple sections of a course, and the PLOs. While it may be unrealistic for courses to be exactly the same, this representation will tell you if there are large discrepancies between expectations for student learning in different sections of a course. If the course instructors examined the data as a group it could foster discussions about the

intentions for a course, different approaches used, and potentially lead to greater consistency of expectations of students. The instructors might also discover that they have fairly similar approaches to the course but had a different understanding of the mapping scale when they mapped their section. An examination of the specific course outcomes used in each section would be helpful here.

Questions to Analyze the Chart:

1. In what ways do the different sections of the course show general consistency between sections?

2. Where are there substantial differences between sections of the course?

3. How might you foster productive discussions between section instructors to promote consistency of expectations of student learning?

4. Are there any courses in your program that you think might benefit from creating this type of data representation?

Bar Chart Summarizing the Number and Depth of Course Outcomes per PLO for All Courses
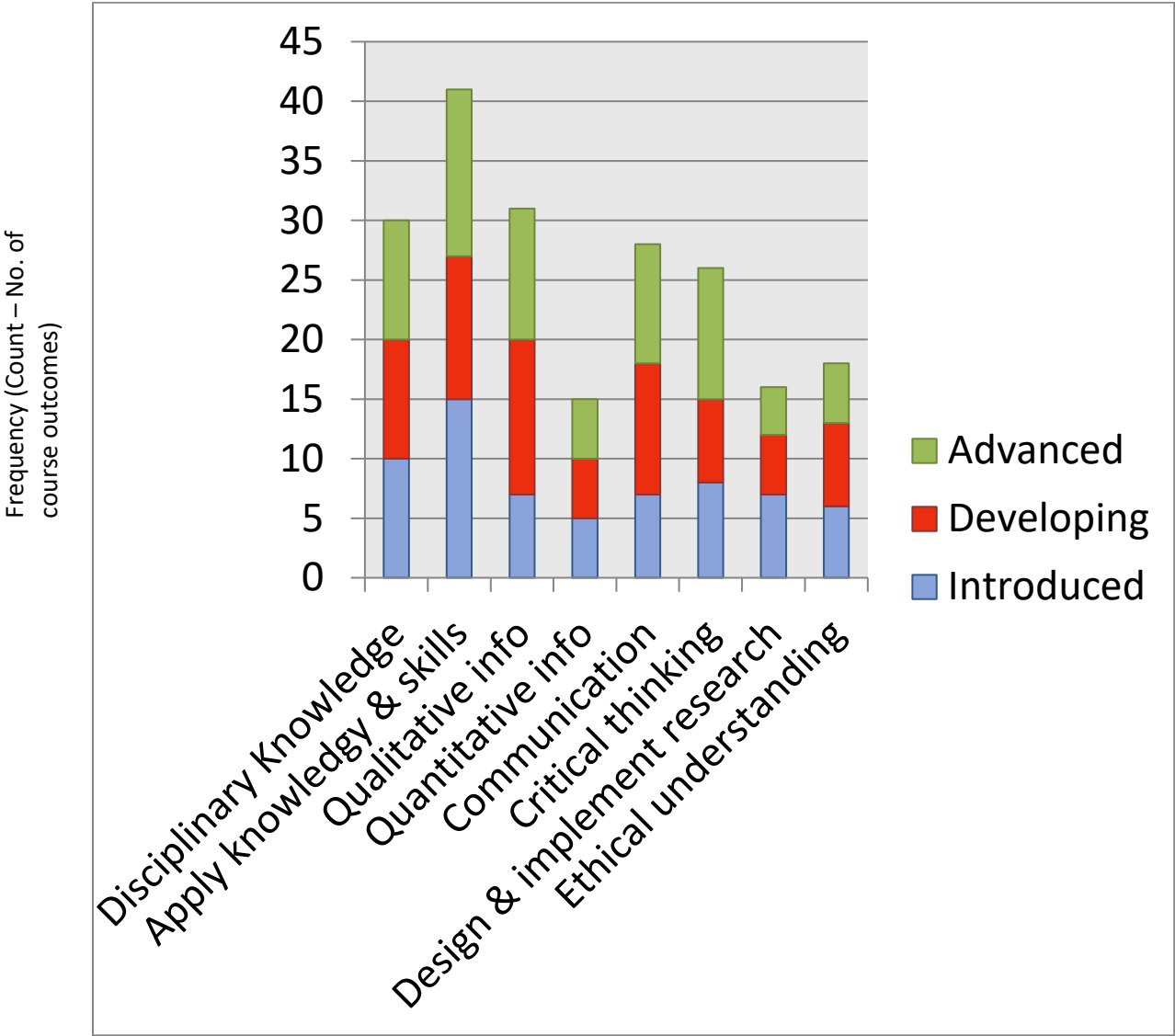
Notes: No data for 320, 350, 406, 441, 502

Description:

This bar chart summarizes the number of course outcomes related to each of the program-level learning outcomes (PLOs) for all courses in the program. It makes a great companion chart to the previous one. Please note that the data can look falsely robust when representing all courses in a program as students likely do not take all courses within a program – there is usually some student choice.

Analyzing Curriculum Mapping Data | Bar Chart Summarizing the Number and Depth of Course Outcomes per PLO for All Courses

14

Bars indicate the number of course outcomes that contribute to each PLO, added up from all courses in the program. Each bar is broken into three sections, representing the number of course outcomes at the Introductory, Developing, and Advanced levels. Looking at program-level learning outcome #1, ten course outcomes address it at the 'Introductory' level, ten address it at the level of 'Developing', and ten address it to an 'Advanced' degree.

Questions to Analyze the Data

1. What are the strengths of the program?

2. Which PLOs are being least emphasized? Looking at our priorities for the program (PLOs), what are we collectively not doing well enough?

3. Is it necessary or even desirable to emphasize PLOs equally? Are some PLOs more important than others? Who decides what emphasis should be given to the different PLOs? How will such decisions be made?

4. What might be problematic if your group used this chart only as a source of discussion? What questions do you have that are not answered by this chart?

Bar Chart Summarizing the Number and Depth of Course Outcomes per PLO for Required Courses

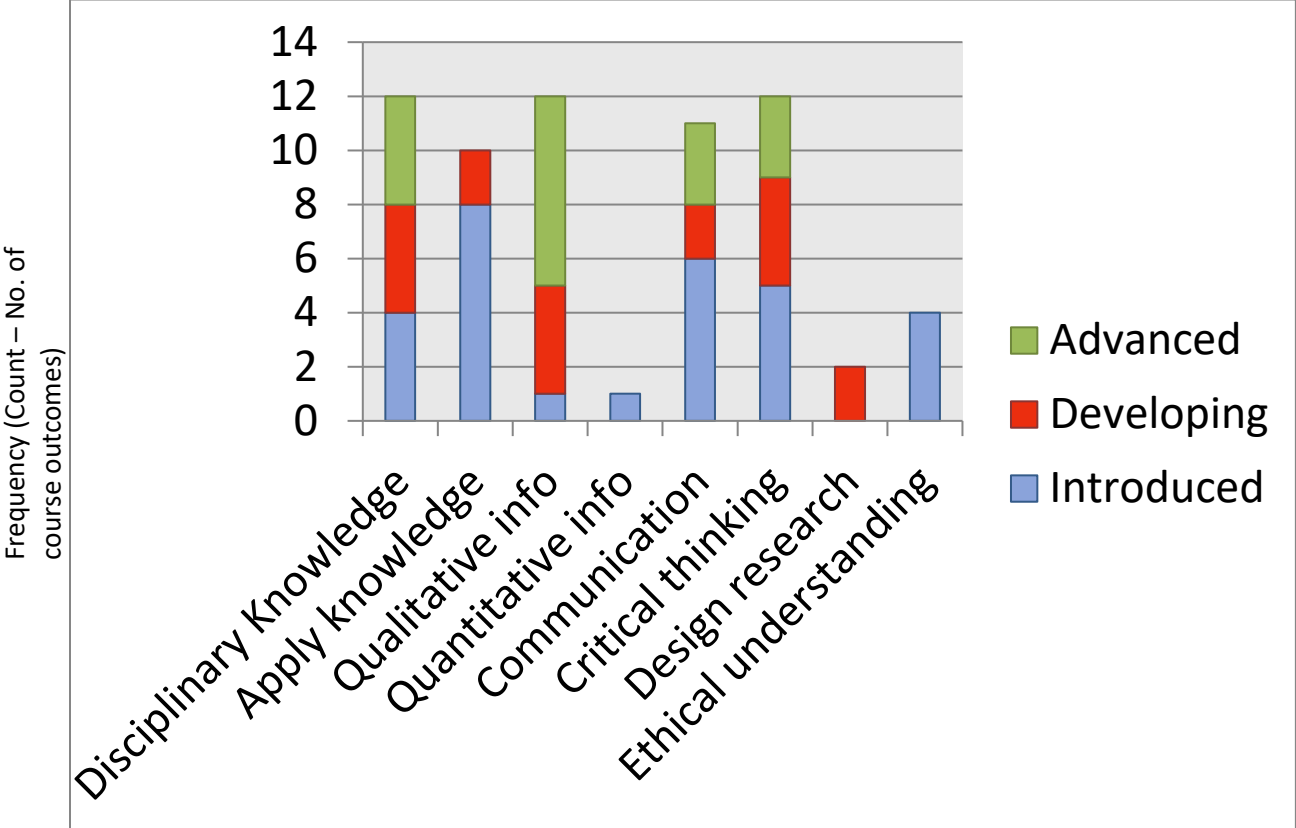Notes: No data for 320

Description:

This bar chart summarizes the number of course outcomes related to each of the program-level learning outcomes (PLOs) for required courses in the program. It tells you at a glance which PLOs are being emphasized, and to what degree, for all majors in the program. At this point the conversation shifts from focusing on what one course contributes to the program, to a collective view of the effectiveness of the program.

Bars indicate the number of course outcomes that contribute to each PLO, added up from all courses in the program. Each bar is broken into three sections, representing the number of course outcomes at the Introductory, Developing, and Advanced levels. Looking at PLO #1, four course outcomes address it at the 'Introductory' level, four address it at the level of 'Developing', and four address it to an 'Advanced' degree.

Analyzing Curriculum Mapping Data | Bar Chart Summarizing the Number and Depth of Course Outcomes per PLO for Required Courses

16

Questions to Analyze the Data

1. What can this chart convey that is different from the previous chart?

2. What are the strengths of the program?

3. Which PLOs are being least emphasized? Looking at our priorities for the program (PLOs), what are we collectively not doing well enough?

4. What strategies do you have for presenting such data to your faculty and facilitating discussion around:
   - What the data mean
   - How to analyze the chart
   - Recommendations based on the evidence

All Courses in a Program and Depth of PLO

Course No.	Disciplinary Knowledge	Apply knowledge & skills in different contexts	Evaluate qualitative info	Evaluate quantitative info	Communicate orally and in writing	Critical thinking	Design and implement research	Ethical understanding
COURSE 201	I		I		I	I		
COURSE 203	I		D			I		
COURSE 220	D	I	D			I	I	I
COURSE 230	D	I			I	D		
COURSE 240	D	I				I		I
COURSE 301	A	D	D		D	A	D	
COURSE 303	I	I	D		D	I		D
COURSE 321	D	D	D	D		I		D
COURSE 330	No data							
COURSE 340	D	A			D	A		D
COURSE 401	A	D	D		D	D	D	
COURSE 403	I	D	D	D			A	
COURSE 430	No data							
COURSE 440	A							
COURSE 450	A	A	A	A	A	A	A	A
COURSE 460	A				A			
COURSE 520	D	D	I		D	D	I	
COURSE 550	A	A	D		A	D	D	

Description:

This chart has PLOs listed across the top. All courses in the program are listed down the left-hand side. The most frequently indicated alignment is captured in each cell. For example, in Course 201, course outcomes related to Disciplinary Knowledge most frequently at the Introductory level. Where course outcomes related equally at two levels (for example, one course outcome aligned at an Introductory level and one at a Developing level), the higher alignment was indicated on the chart.

Please note that students rarely take all courses that are offered, which can make a program appear falsely robust. However the information here can help when examining required courses and prerequisites, and evaluating how certain courses might be able to address gaps in the program.

Required Courses in a Program and Depth of PLO

Course No.	Disciplinary Knowledge	Apply knowledge & skills in different contexts	Evaluate qualitative info	Evaluate quantitative info	Communicate orally and in writing	Critical thinking	Design and implement research	Ethical understanding
COURSE 201	I		I		I	I		
COURSE 203	I		D			I		
COURSE 220	D	I	D			I	I	I
COURSE 230	D	I			I	D		
COURSE 301	A	D	D		D	A	D	
COURSE 303	I	I	D		D	I		D
COURSE 330	No data							
COURSE 401	A	D	D		D	D	D	
COURSE 403	I	D	D	D			A	

I = Introduced: Key ideas, concepts or skills related to the learning outcome are introduced and demonstrated at an introductory level. Instruction and learning activities focus on basic knowledge, skills and/or competencies and entry-level complexity.
D = Developing: Learning outcome is reinforced with feedback; students demonstrate the outcome at an increasing level of proficiency. Instruction and learning activities concentrate on enhancing and strengthening existing knowledge and skills, as well as expanding complexity
A = Advanced: Students demonstrate the learning outcome with a high level of independence, expertise and sophistication expected upon graduation. Instructional and learning activities focus on and integrate the use of content or skills in multiple levels of complexity.
Adapted from California State University, Long Beach (n.d.) and Veltri, Webb, Matveev & Zapatero (2011).

Description:

Like the previous chart, this chart has PLOs listed across the top, with required courses in the program are listed down the left-hand side. The most frequently indicated alignment is captured in each cell. For example, in Course 201, course outcomes related to Disciplinary Knowledge most frequently at the Introductory level. Where course outcomes related equally at two levels (for example, one course outcome aligned at an Introductory level and one at a Developing level), the higher alignment was indicated on the chart.

This chart makes a great companion to the previous one. Instead of all courses, just required course are listed. Presenting the data in this way is helpful to view the program from a student perspective because required courses are the only ones that students are guaranteed to take.

Discussion questions:

Three questions you might use with any of the charts:
1. What trends do you see in the data?
2. What does this mean within the context of the program?
3. What are our next steps?

4. What curriculum questions might be better informed by the first chart? By the second chart?

5. What strategies would you use to engage instructors in the process of analyzing the data? How would you guide them through a process to analyze the charts and make recommendations based on the evidence?

Student Assessment Methods Across a Program

This chart summarizes the number and types of student assessments across a program of study. You could also create a chart showing the frequency distribution of teaching and learning activities used across a program of study.

No. of Courses Using Each Assessment Method

Assessment Method	No. of Courses
Midterm exam	20
Final exam	17
Projects	11
Presentation	10
Research paper	9
Discussion	7
Participation	6
Group project	4
Essay	4
Discussion	3
Concept map	1
Debate	1
Poster	1
Portfolio	1
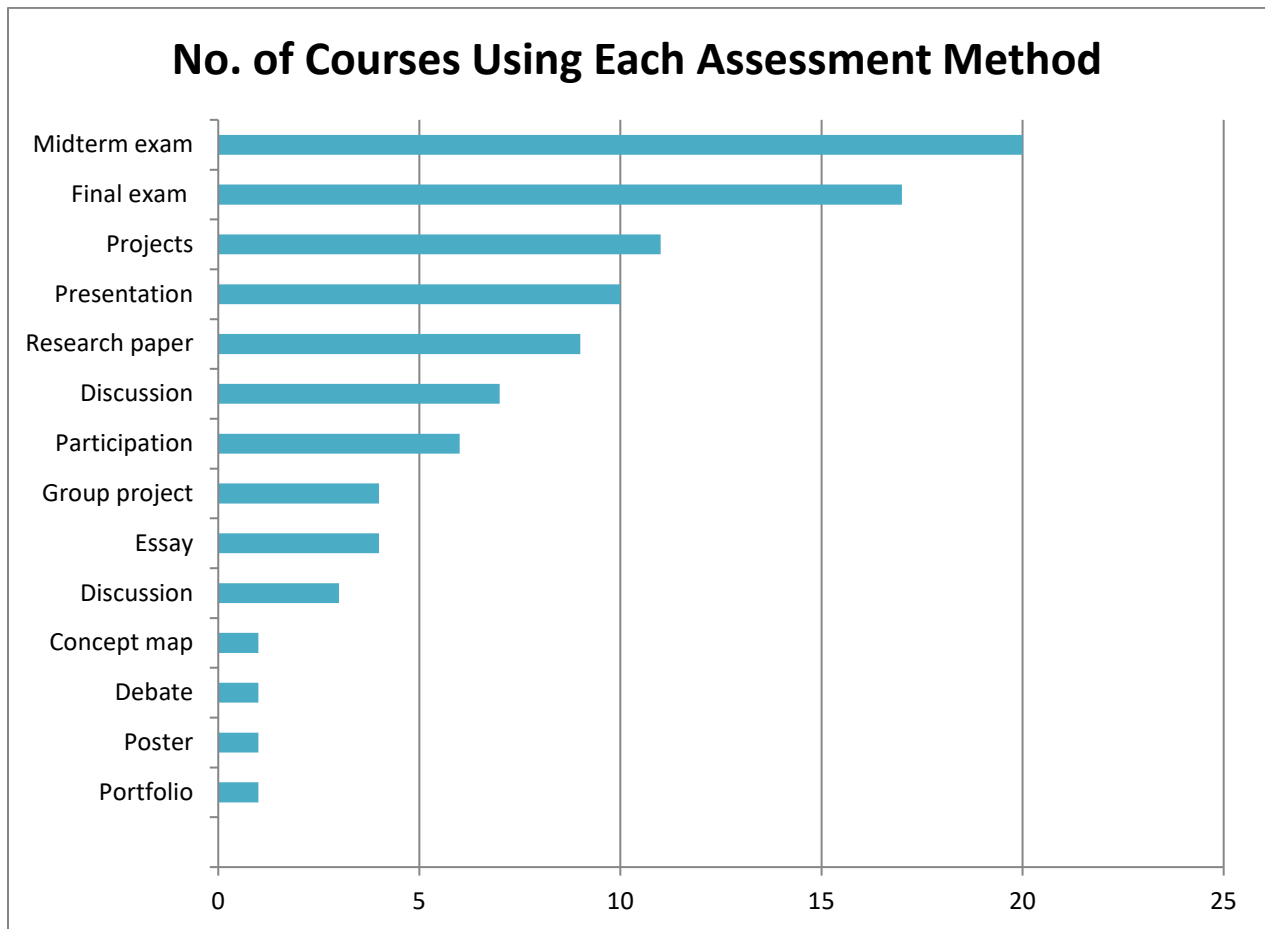
Notes: No data for 320, 350, 406, 441, 502

**Example discussion questions to engage instructors:**

1. What student assessment methods are we most/ least using? Is there enough variety?
2. How congruent is our assessment approach with the discipline? With our faculty and institutional strategic priorities?
3. How effective are the assessment methods in providing student feedback and supporting student learning?

Teaching and Learning Activities per PLO

Depending on how you structure your curriculum mapping, you could construct charts such as these that show the teaching and learning activities for each PLO. The following charts allow you to compare 200-level and 400-level courses, but you do other comparisons as you'd like.

a) How PLOs are taught in required 200-level courses (10 200-level courses)
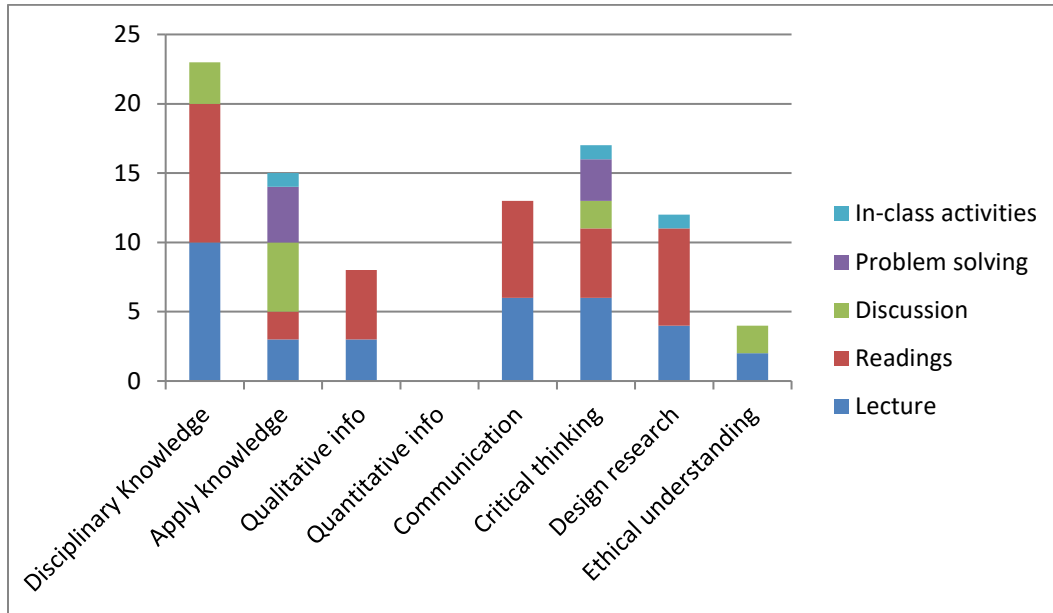
b) How PLOs are taught in required 400-level courses (8 400-level courses; no data for 406, 441)
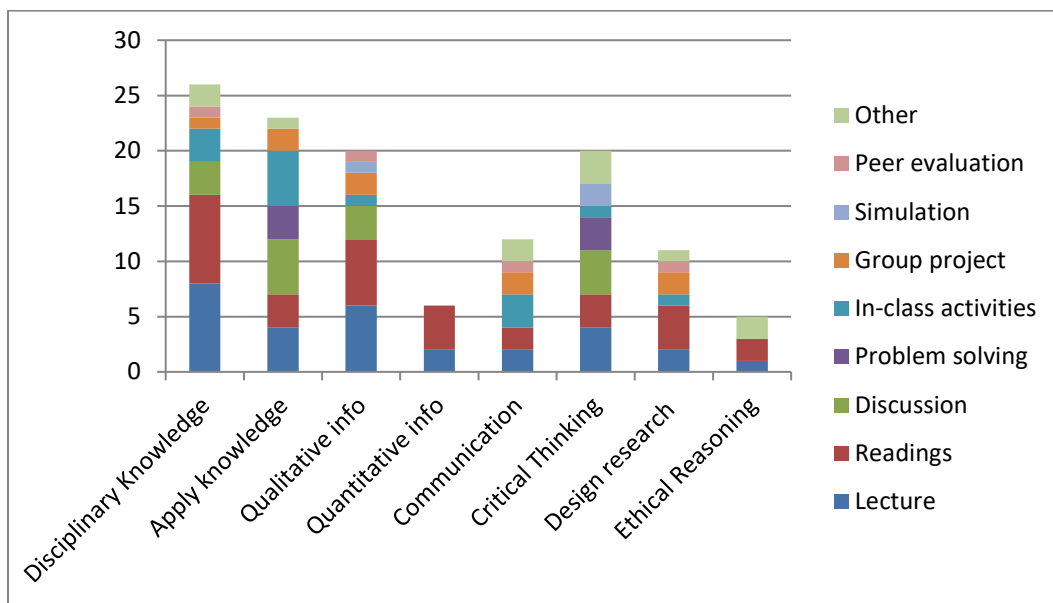
Questions to analyze the data:

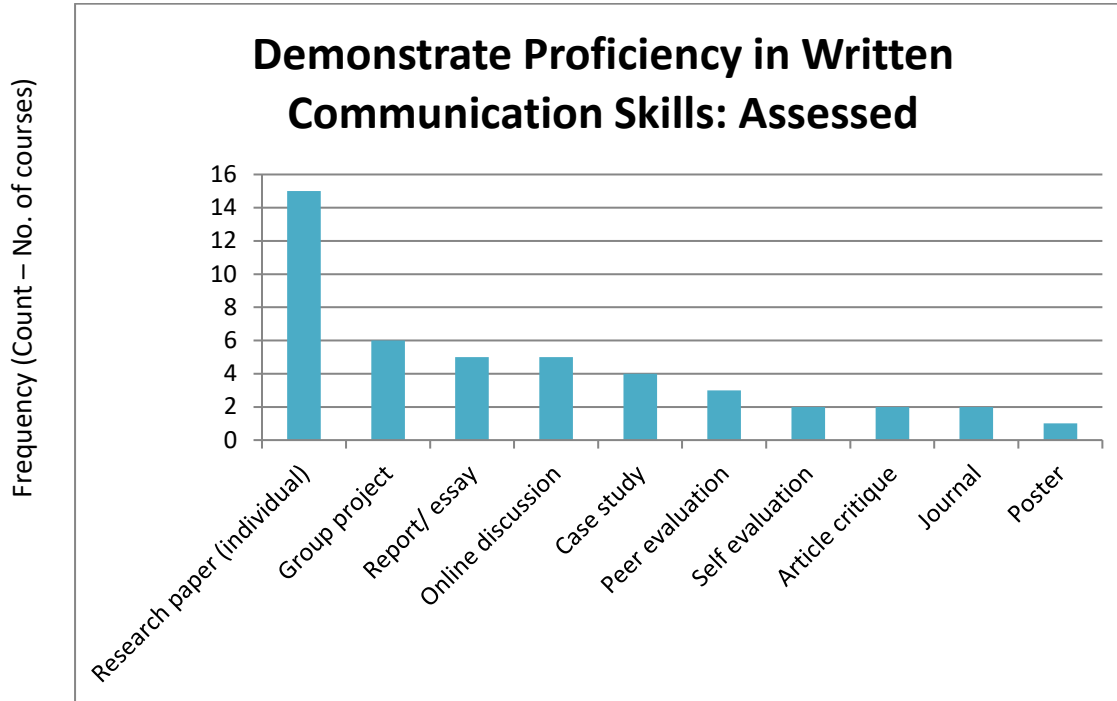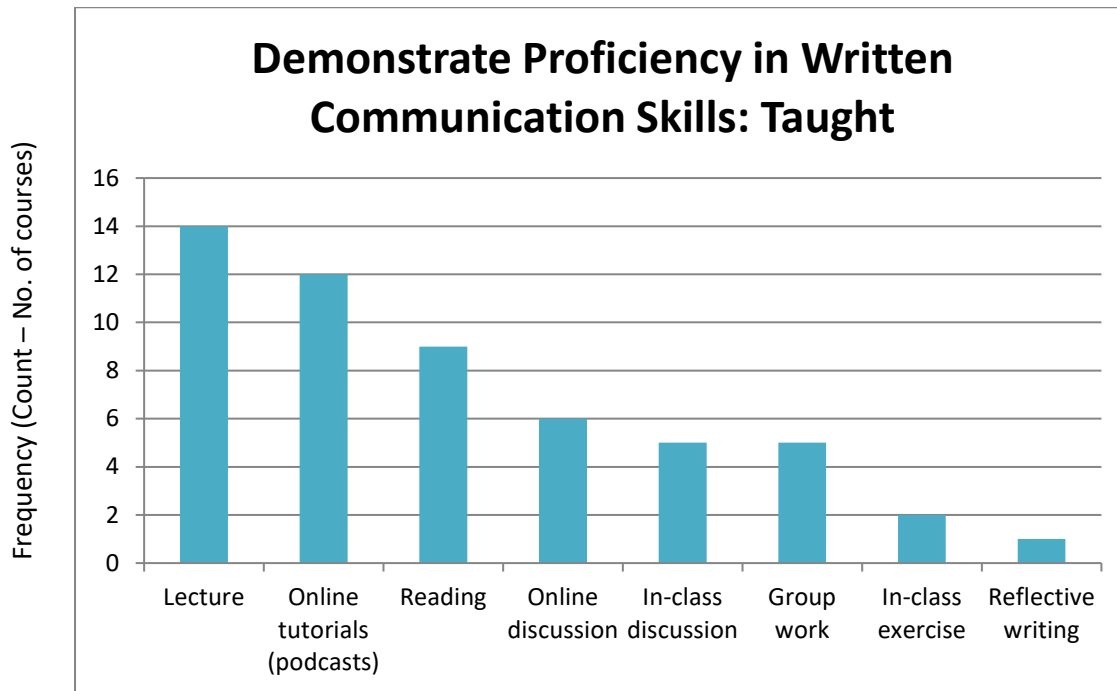1. What observations do you have about the charts? What do they tell you about the types of teaching and learning activities used in 200-level courses and 400-level courses?

2. What questions do you have about teaching and learning activities across the program that are not answered by the charts?

How PLOs are Taught and Assessed

Demonstrate Proficiency in Written Communication Skills: Taught

Frequency (Count – No. of courses)

Method	Count
Lecture	14
Online tutorials (podcasts)	12
Reading	9
Online discussion	6
In-class discussion	5
Group work	5
In-class exercise	2
Reflective writing	1

Demonstrate Proficiency in Written Communication Skills: Assessed

Frequency (Count – No. of courses)

Method	Count
Research paper (individual)	15
Group project	6
Report/ essay	5
Online discussion	5
Case study	4
Peer evaluation	3
Self evaluation	2
Article critique	2
Journal	2
Poster	1

Notes: No data for 320, 350, 406, 441, 502

These bar charts show how one of the PLOs (By the end of the program, students will be expected to demonstrate proficiency in written communication) is being taught and assessed in the program. Different methods of teaching and assessing written communication are listed across the bottom. The bars indicate the frequency, or number of courses that include the method.

Consider creating charts such as these for PLOs in which you want to delve a bit deeper. In this fictitious example, a group was wondering about how written communication was being taught and assessed across the program because they identified writing as an area of challenge for students.

Discussion questions:

1. What are the strengths in how written communication is being taught and assessed in the program?

2. What opportunities do you see to enhance student success regarding demonstrating proficiency in written communication?

3. How might you approach a discussion with instructors on the topic of how written communication is taught and assessed in the program?

Matrix of Teaching and Learning Activities Across a Program

Presenting data in a matrix such as this is helpful when you need to pinpoint the exact courses where certain things occur. A matrix could also be created for student assessments or content/ major concepts (see next chart).

TLA by Course	201	215	230	245	267	301	311	324	340	355	360	401	403	405	410	445
Lecture	x	x	x	x	x	x	x	x	x	x		x	x	x		x
Readings	x	x	x	x	x	x	x	x	x	x		x	x	x		x
Written assignment	x		x			x		x	x			x	x	x		x
Midterm/ quiz	x	x	x	x	x	x	x	x	x	x		x	x	x		x
Portfolio			x			x			x				x			
In-class writing activities		x						x								
Reflection				x						x						x
Presentation													x	x		
Group project							x									x
Demonstrations	x			x	x		x	x				x		x		
Peer feedback									x							

Notes: No data for 360, 410

Matrix of Content Relating to Writing Skills in Required Courses

This matrix is an example of displaying content relating to writing skills in required courses in a program.
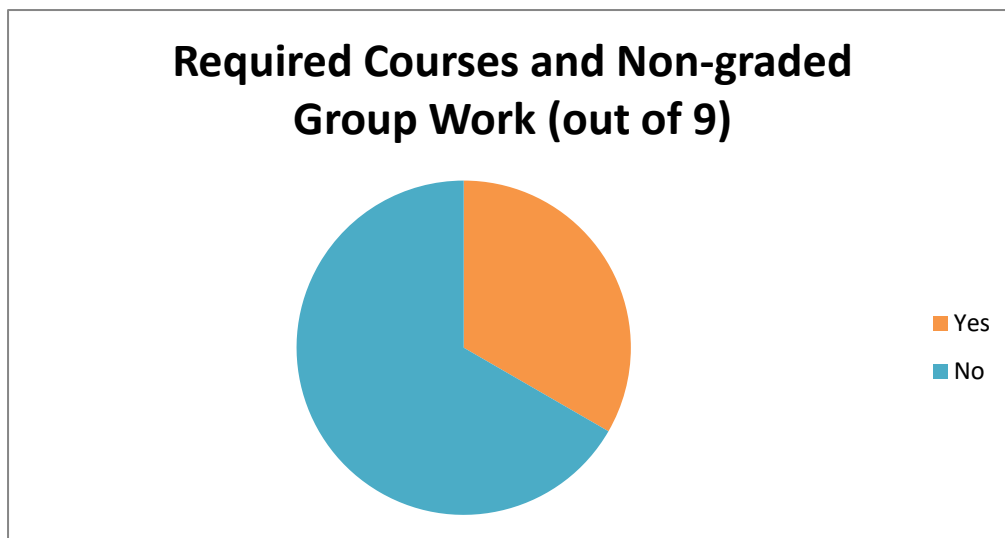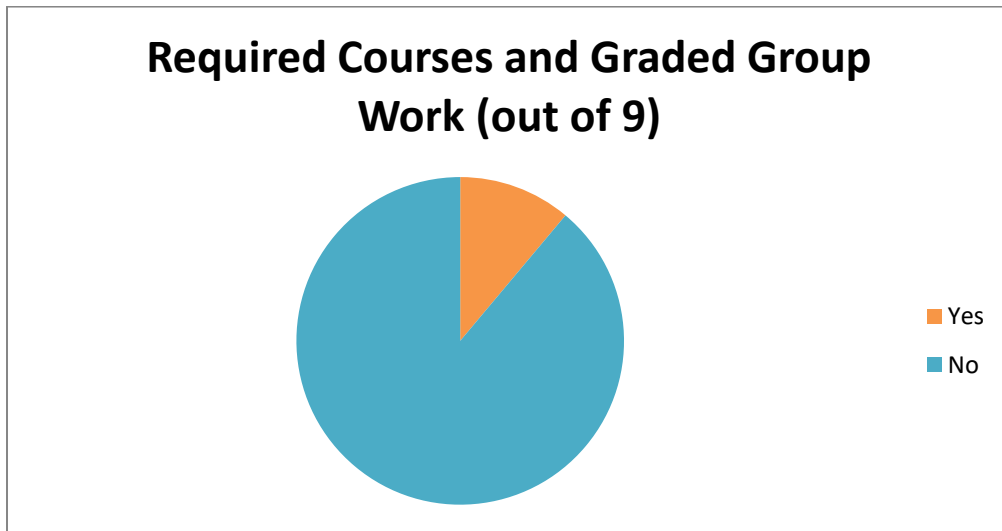
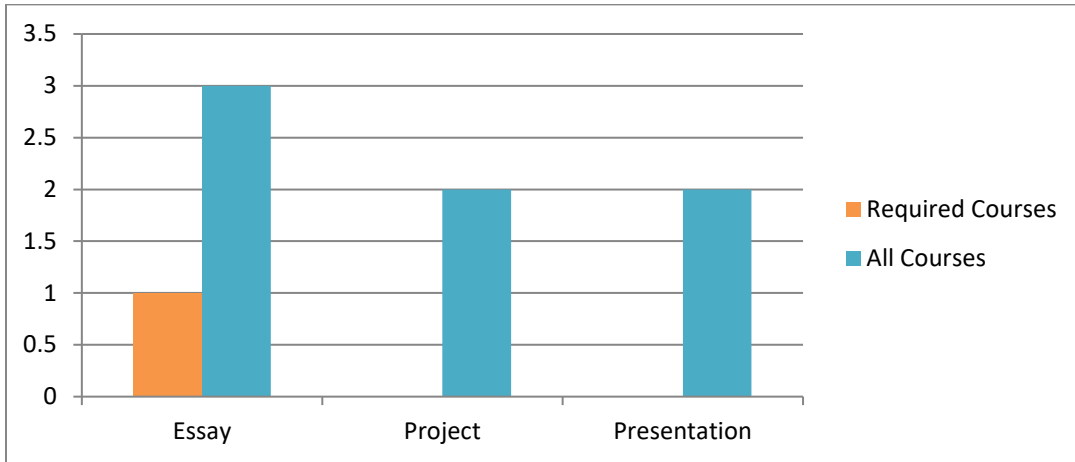| TLA by Course	201	215	230	245	267	301	311	324	340	355	360	401	403	405	410	445
Referencing and citations	X	X	X	X	X	X	X		X			X				
Locating references			X				X									
Using primary sources						X			X				X			X
Evaluating references	X	X		X		X										
Avoiding plagiarism	X	X	X	X	X											
Making an outline					X											
Style and tone													X			
Thesis statements	X			X					X							
Writing an introduction	X	X	X													
Writing a conclusion	X	X	X													
Making an argument	X					X	X					X				
Editing																
Where to get help	X	X	X	X	X	X	X	X	X	X		X	X	X		X
Audience													X			
Paraphrasing and note taking																

Notes: No data for 360, 410

Creating Charts on Special Topics

Special Topics

It is possible to represent other types of curriculum data on topics of special interest to your review, as long as you have collected that data. For example, your group may be interested in an in-depth study of how and where students do group work. To find out more about this you could add a question or two to the course mapping survey. The following charts could be created to inform discussion:

Required Courses and Graded Group Work (out of 9)

- Yes
- No

Required Courses and Non-graded Group Work (out of 9)

- Yes
- No

Types of Graded Group Work in the Program

Types of Non-graded Group Work in the Program
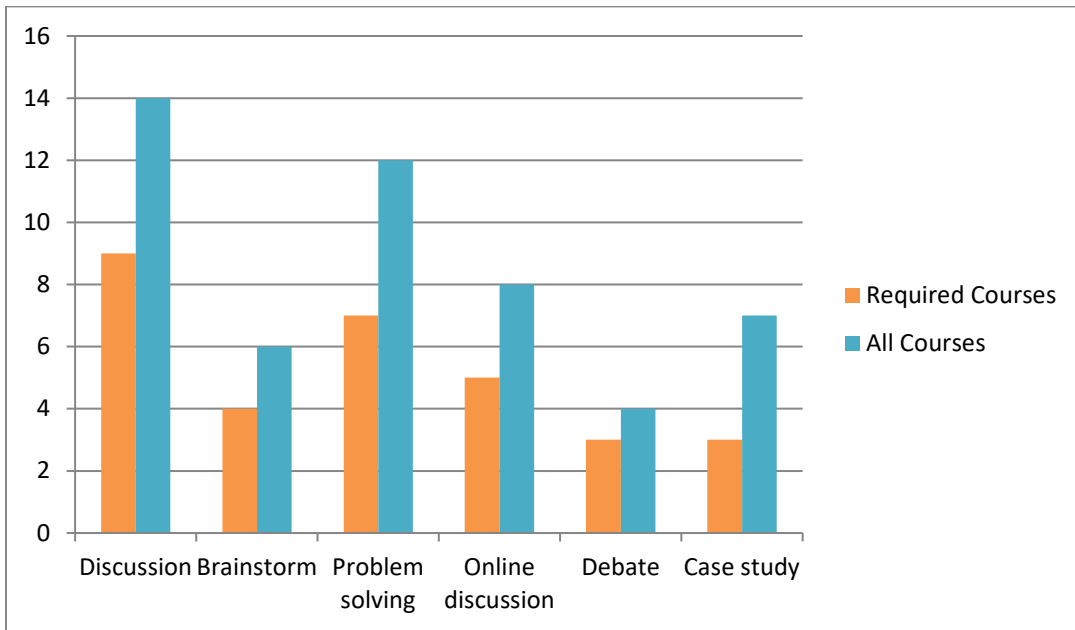
Planning Chart

Use this chart to help you plan how to present your curriculum mapping data.

Y/N	Type of Chart	Notes
	Course streams (p. 10)	
	Multiple sections of a course (p. 12)	
Y	Bar chart summarizing the number and depth of course outcomes per PLO – all courses (p. 14)	
Y	Bar chart summarizing the number and depth of course outcomes per PLO – required courses (p. 16)	
Y	Chart with all courses in a program and depth of PLO (p. 18)	
Y	Chart with required courses in a program and depth of PLO (p. 19)	
	Student assessment methods used in required courses (p. 21)	
	Teaching and learning activities per PLO (p. 22)	
	Bar charts summarizing how specific PLOs are taught and assessed (p.24)	
	Matrix of TLAs in courses across the program or required courses (p. 26)	
	Matrix of content on a special topic (p. 27)	
	Charts on a special topic (p. 28 – 29)	
	List of course outcomes for all courses	
	Answers to open-ended questions (complete text)	
Individual Courses		
	Course outcomes to PLOs if mapping was conducted using paper-based approach – one course (p. 5)	

Additional charts:

Notes:

Analyzing Curriculum Maps at the Program Level

Questions for Collaborative Discussion and Engagement

(Adapted from Banta and Blaich, 2011, p. 23)
The following questions can be used to guide discussions related to data gathered through curriculum mapping processes. Questions will be adapted based on each specific project.

General

- What general trends do you see in the data?
- What data presented most surprised you? Why?
- Where are our strengths? What are we doing well?
- Where are some areas for improvement?
- How do these results align or conflict with other curriculum assessment results (eg. student/ faculty/ employee feedback) or past program reviews? Where are areas of congruency and divergence?
- What next steps might be taken to improve and align our curriculum?

Instructional and Assessment Methods

- What instructional/ assessment strategies are we most/ least using?
- How are the instructional and assessment methods used in the courses congruent with the discipline?
- How are the instructional and assessment methods used in the courses congruent with our program's/faculty's/institution's mission and vision?
- How are high impact educational practices embedded throughout the curriculum?
- In terms of supporting student learning, how well are the instructional and assessment methods that we use working?

Learning Outcomes

- What learning outcomes are we most/ least emphasizing?
- Where are the strengths and gaps in the teaching and assessment of these learning outcomes?
- How do our instructional and assessment strategies align with the intended learning outcomes?
- Which learning outcomes resonated (i.e. were clearly stated, and easily interpreted)? Which ones were confusing? How could the learning outcomes be further clarified?

Workload and Progression

- How does student learning progress across the program for each of the learning outcomes? How could student achievement of the learning outcomes be better supported through this progression?
- How is student workload distributed across the semester?
- When have students and instructors expressed concern over workload during the semester? How could workload be more evenly distributed?

Questions for Review Leads

- How will you encourage instructors to take a thoughtful, reflective approach to mapping their courses?
- What types of aggregate charts will best inform your guiding questions?
- What strategies might you use to engage instructors in the process of analyzing the data? How might you help them make sense of the data? How might you guide them through a process of analyzing data (including other sources) and making recommendations based on the evidence?
- How might you approach a discussion with instructors on curriculum topics? What strategies do you have to keep the discussion productive, focused and positive?

Ways to Involve People in Data Analysis

This section includes some strategies to involve all faculty in the process of analyzing different data sources. Again, these suggestions are just a starting point and not an exhaustive list:

- All-faculty retreat (and provide food)
  - Invite some student reps as well, perhaps from your student council
- Discussion at a department meeting
- Add data to a Desire2Learn discussion board, allowing all to access the data and comment when it fits into their schedule
- Ask for volunteers to form a working group to take on the work of data analysis
  - Consider student volunteers for this working group
- Invite sessional instructors in on the conversation (a great professional development opportunity for them)
- Prepare an initial analysis and send it to all faculty for feedback and recommendations
- Involve your Undergraduate Curriculum Committee in the analysis and report writing

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