

Description of Your Report

Your Course Evaluation Report contains up to four sets of items, represented in up to four sections in your report, described below.

Sets of Items

Institutional Items

These eight items are consistent across the University of Toronto. They are comprised of:

- Five rating-scale items which represent institution-wide teaching and learning priorities.
 - ◊ **The institutional composite mean, a mathematical average of these first five items.**
- One rating-scale item on the overall quality of a student's learning experience.
- Two qualitative comment items.

Divisional Items

These items are consistent across your division. They represent division-wide priorities for teaching and learning.

Departmental/Program/Course-Type Items

These items (when applicable) represent further levels of granularity and specificity for teaching and learning priorities within your division (e.g., department, program, course type).

Instructor-Selected Items

These items are optional items which may be selected from the item bank by instructors during the question personalization period.

- **Note that the results from these items are only reported to instructors, as they are primarily intended to function as personal formative feedback.**

Report Sections

The following provide different statistical summaries and representations for your institutional, divisional, and departmental/programmatic items (where appropriate).

Section 1: Course Evaluation Overview

Provides all course evaluation data except instructor-selected items.

Section 2: Response Distributions and Additional Statistics

Provides detailed response distributions.

- The number and relative percentage of respondents providing a given answer is provided, along with a graphical representation.
- This section also reports further statistics for each set of items relative to Section 1.

Section 3: Comparative Data

Provides comparative means for your course as compared to the relevant means across *all other evaluated courses at a particular level of comparison (e.g. division, program)* for each set of items.

Section 4: Instructor-Selected Items

Provides data for optional items that instructors can select from the item bank during the question personalization period. This section is formatted identically to Section 2.

Statistical Terms Used in this Report

Mean: The mathematical average. This measure is the most sensitive, and can be greatly affected by extreme and/or divergent scores.

Median: The middle value when all responses are ordered. This measure is less affected by extreme and/or divergent scores.

Mode: The most frequently occurring score.

Standard deviation: A measure of the "spread" of the data.

Course Name: CURRENT MACHINE LEARNING CSC2547H-S-LEC9101 (SYNC) Division: SGS Session: S Session Codes: F = First/Fall, S = Second/Winter	Instructor: Amir-massoud Farahmand Section: LEC9101 Delivery Mode: SYNC Report Generation Date: April 21, 2021
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Raters	Students
Responded	28
Invited	30

Section 1: Course Evaluation Overview

Part A. Core Institutional Items

Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

Question	Summary	
	Mean	Median
I found the course intellectually stimulating.	4.5	5.0
The course provided me with a deeper understanding of the subject matter.	4.5	5.0
The instructor (Amir-massoud Farahmand) created an atmosphere that was conducive to my learning.	4.5	5.0
Course projects, assignments, tests, and/or exams improved my understanding of the course material.	4.2	4.5
Course projects, assignments, tests and/or exams provided opportunity for me to demonstrate an understanding of the course material.	4.3	5.0
Institutional Composite Mean	4.4	-

Scale: 1 - Poor 2 - Fair 3 - Good 4 - Very Good 5 - Excellent

Question	Summary	
	Mean	Median
Overall, the quality of my learning experience in this course was:	4.3	4.5

7. Please comment on the overall quality of the instruction in this course.

Comments

The instructor was **excellent!** Materials were delivered clearly. Course content was well organized and covers many important aspects. It would be interesting to cover recent progress and emerging research directions in RL.

The overall quality was **great** and I believe the course material gave me a **much deeper understanding of the field**. The only issue I found with the delivery of the course was that classes were usually **overtimed**. Maybe two sessions a week would work better to **avoid overtime**. Also maybe less time can be allotted to answering the questions during the lectures. Sometimes the questions took too long to answer that there was not enough time to finish the lectures.

The lectures are **too theoretical** — not saying having a lot of math and proofs is a bad thing, but balance them with examples/practice questions would help us understand the content more easily. For example, the exercise in Lecture 2 (on Banach Fixed Point Theorem) is very useful, but unfortunately, that kind of exercise was not seen in the rest of the course. Another thing is that the deliverables are all concentrated in the latter half of the term. I understand this may be due to this is a new course, but it did lead to a not too good learning experience.

The course was ok overall. It was a bit disorganized though.

I found the topic of RL very interesting and fun to work with and think about. The course was quite disorganized, but that's understandable given that it is the first time it's being offered. It ended up being very heavy in terms of assessments towards the end, while not having anything to do at all in the beginning. I do expect this to be fixed in future years though. Thank you to Dr. Farahmand and the TAs!

Professor is **patient and responsible**. The assignments helps to understand the concepts.

Great!

My only suggestions are to space things out more (e.g., assignments) because there has been too much compounding at the end of the term. I understand that the course had to built from scratch, however. I would also recommend perhaps going faster through proofs, so there would be more time for other topics.

The quality was **excellent**.

This course was **very good in learning theoretical aspects of RL**. It was very nice that we learned everything from scratch and proving them. I learned a lot. My only **suggestion is to add some non-theoretical aspects of RL** in course to make it more fun. I mean like recent state-of-the-art methods or results and analyzing their approach in the class would be useful and brings some different topics into course (sometimes theory gets boring and by mixing it you can enjoy it better).

I really liked it overall. It was quite flexible with attendance yet still managed to be fairly rigorous in the assignemtns.

Good.

It's **very good**.

Although this course is technically introductory, the nature of RL requires a strong foundation. This course is **excellent**, and very quickly progresses to techniques that are state of the art. The material is **very well thought-out**. Definitely **my favorite class**.

It was obvious that the professor cared about teaching and the quality of the course. Although the course is new, the materials are already of a high standard. The lecture notes are written in a concise way, though being rough around the edges. Having read Sutton's book twice and also having completed the coursera RL specialization, I can say that **this course fills theoretical gaps that the other materials do not fill**. The course has its own identity and takes a different approach at introducing RL. For me it's hard to say if it would have been better to start off with Sutton or this class. Certainly, there are advantages and disadvantages to both. I found this class to be more mathematically rigorous and more focused on the optimization side of RL (Bellman Operators, error bounds, etc.), whereas Sutton is more focused on the intuition of algorithms.

The course is overall **well-structured and comprehensive**. I learned a lot through out the course.

During my undergraduate and master studies at UofT, I've taken 5 courses from the Computer Science department. I would say this is the best one out of five. Lectures are particularly better than the other four. All important messages are delivered clearly and at a moderate speed. Slides and lecture notes have also been really helpful to me too.

The course instructor was **highly knowledgeable and experienced** in teaching the course material.

Amir-massoud did **a wonderful job** teaching the course. He was **very passionate and committed** to making sure the students learned about the fundamentals of reinforcement learning. The assignments and evaluations were well-structured and easy to follow. The slides were well organized and all equations and math notations were well explained.

This course is **excellent!**

It was a great course covering all the aspects of RL, and giving useful assignments and projects to help better understanding.

The overall quality of instruction was well done, but **the only reason I didn't put higher points was that I dislike the nature of online courses** which we unfortunately have to live with for now.

I really liked the structure of the course. Starting with population versions and generalizing to sample based methods was a good approach. I also enjoyed the emphasis on theoretical proofs of claims. One improvement I have in my mind is to **spend more time**

I realize this issue. I will ask for two sessions in the future offering. To accommodate all lectures were recorded so students could watch the overtime part later.

Noted. Will be improved.

Hopefully the pandemic will be done for the next offering

Comments
summarizing the content, completing the higher level picture and connections between the algorithms. A nice diagram could help. <i>Will use in the next revision.</i>
I would like assignments that require deeper understanding of content and are more thought-provoking.
The overall quality is pretty great, with possible improvement in hw/project scheduling. <i>Hws had to be created from scratch. The schedule will be improved</i>

8. Please comment on any assistance that was available to support your learning in this course.

Comments
TAs were helpful for assignments. It would be great if we can get more feedback on the project proposal, <i>I'll see if we can accommodate this. The bottleneck is the number of TAs.</i>
The slides provided just about enough detail to help me follow the instructor. The instructor and the TAs were all available for answering any questions.
The responding speed on Piazza is very fast. Thank you for that!
That was ok.
TA support for homework assignments and the final project was provided and was helpful. I also found the YouTube uploads to be extremely convenient for reviewing course material.
I mostly only went to lectures
The professor was very thoughtful, responsive and helpful with virtually all requests, questions, etc.
The lecture notes were an excellent resource for better learning, as they were like a summary of (multiple) textbook material but providing enough details to learn the subject. Thank you for preparing them.
I really liked the lecture notes that were provided on the website.
The Instructor and TAs were very effective at providing quick and valuable feedback and responses, both in OH and over Piazza.
I only used the lecture notes and the slides to complete to course but I have read Sutton's book in the past.
If the videos could be uploaded sooner, that would be better.
TA office hours are held for every deliverable.
Weekly office hours were available and setting up meetings with the TAs was helpful for the project.
Piazza, Professor Office Hour, TA Office Hour, assignments
No Comments

Part B: Divisional Items

Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

Question	Summary	
	Mean	Median
FAS001 The instructor (Amir-massoud Farahmand) generated enthusiasm for learning in the course.	4.6	5.0

Scale: 1 - Very Light 2 - Light 3 - Average 4 - Heavy 5 - Very Heavy

Question	Summary	
	Mean	Median
FAS002 Compared to other courses, the workload for this course was...	3.7	4.0

Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - Strongly

Question	Summary	
	Mean	Median
FAS003 I would recommend this course to other students.	4.3	4.0

Section 2: Response Distributions and Additional Statistics

This section provides detailed response distributions.

Mean: The mathematical average. This measure is the most sensitive, and can be greatly affected by extreme and/or divergent scores.

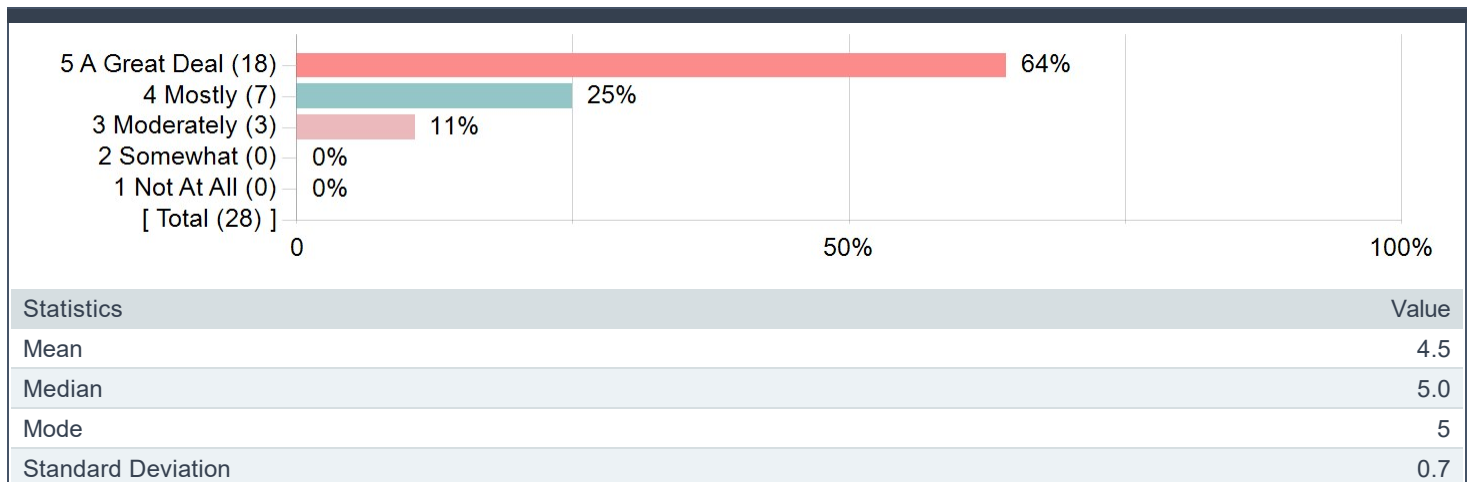
Median: The middle value when all responses are ordered. This measure is less affected by extreme and/or divergent scores.

Mode: The most frequently occurring score.

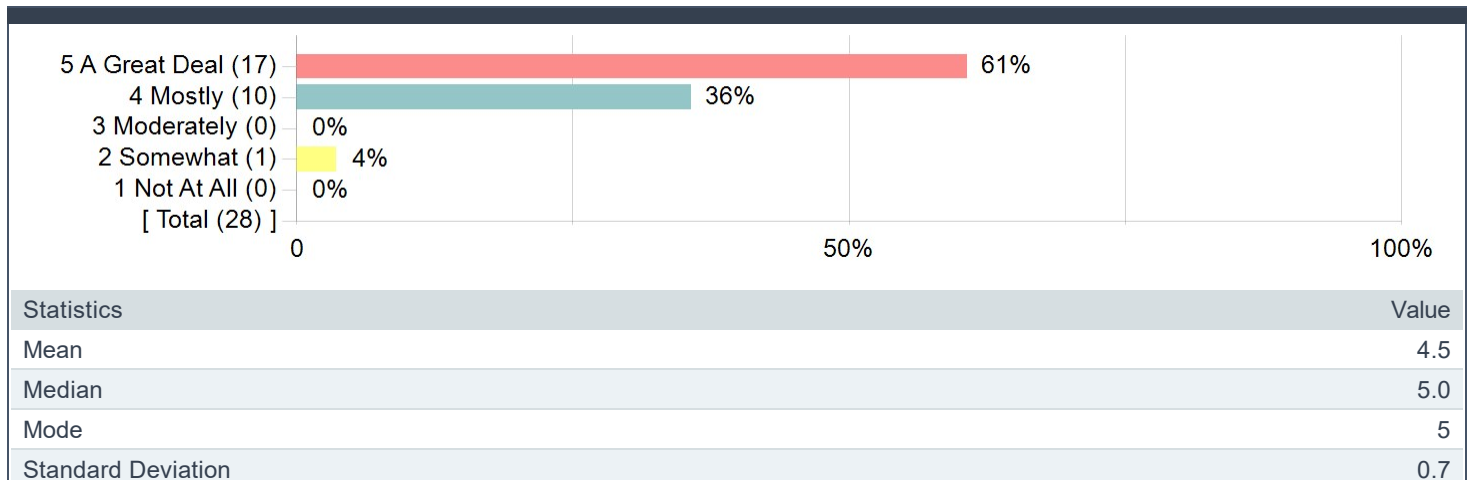
Standard deviation: A measure of the "spread" of the data.

Part A: Core Institutional Items

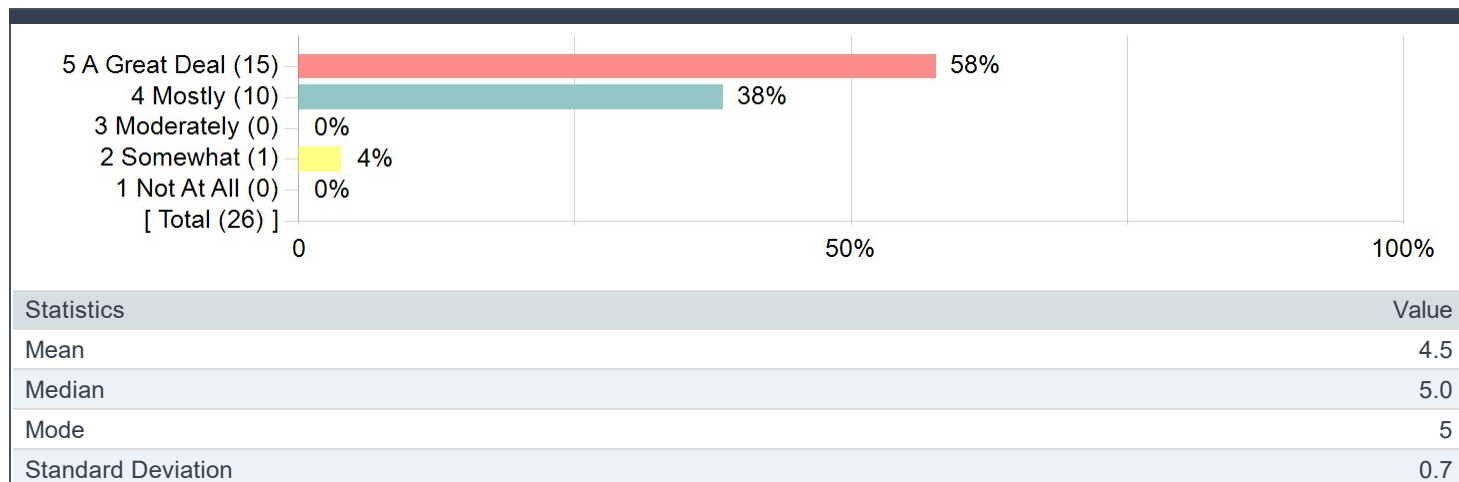
1. I found the course intellectually stimulating.



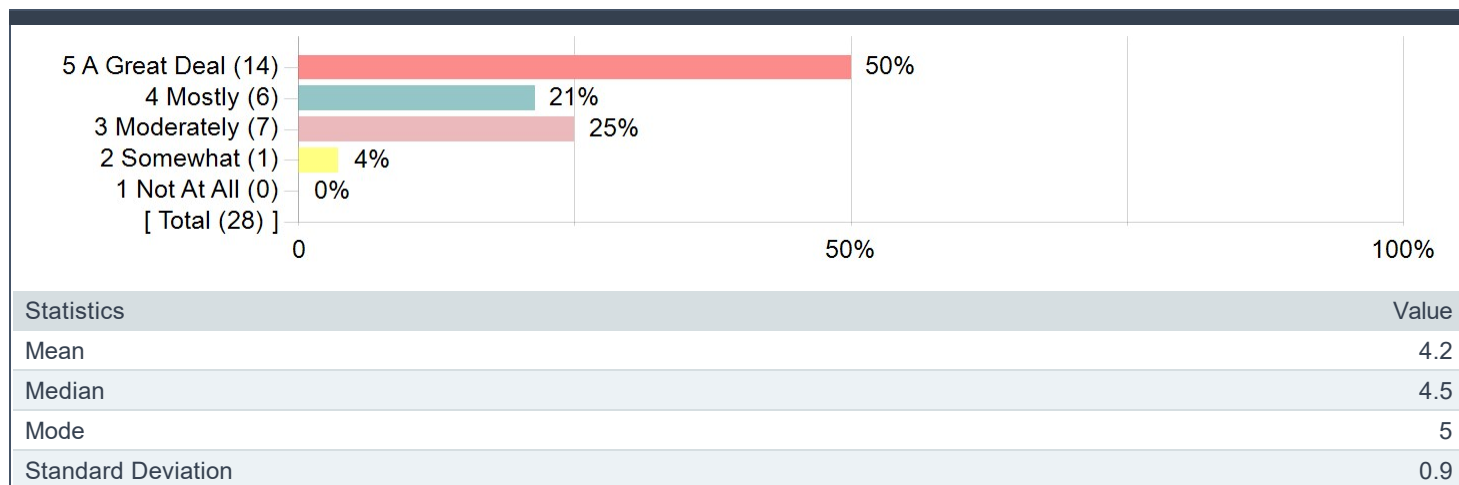
2. The course provided me with a deeper understanding of the subject matter.



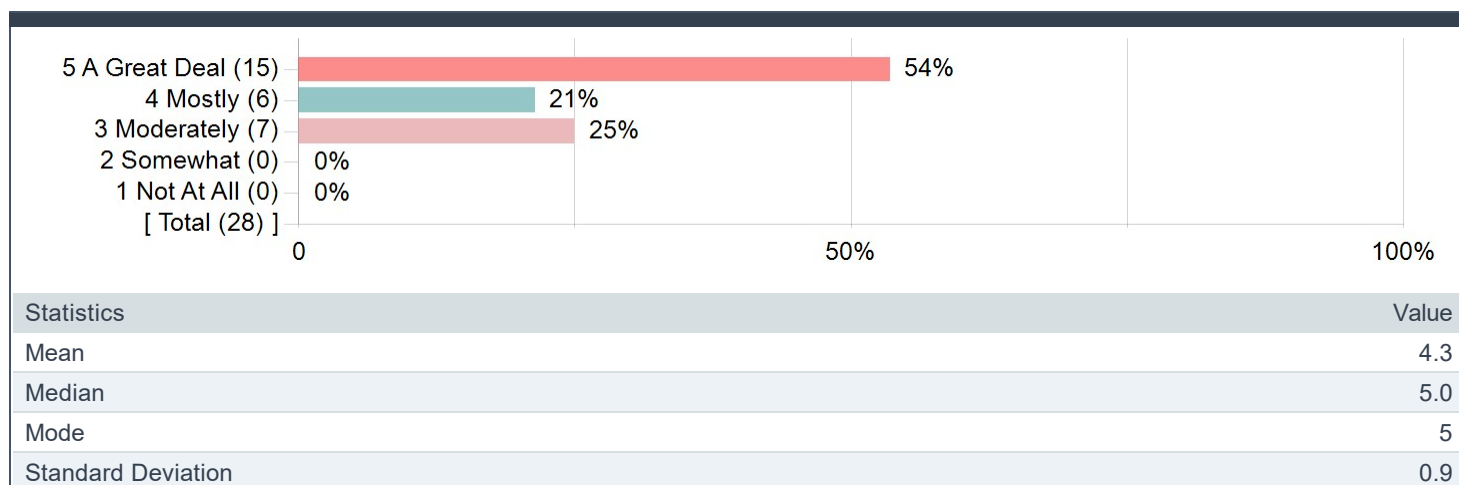
3. The instructor (Amir-massoud Farahmand) created a course atmosphere that was conducive to my learning.



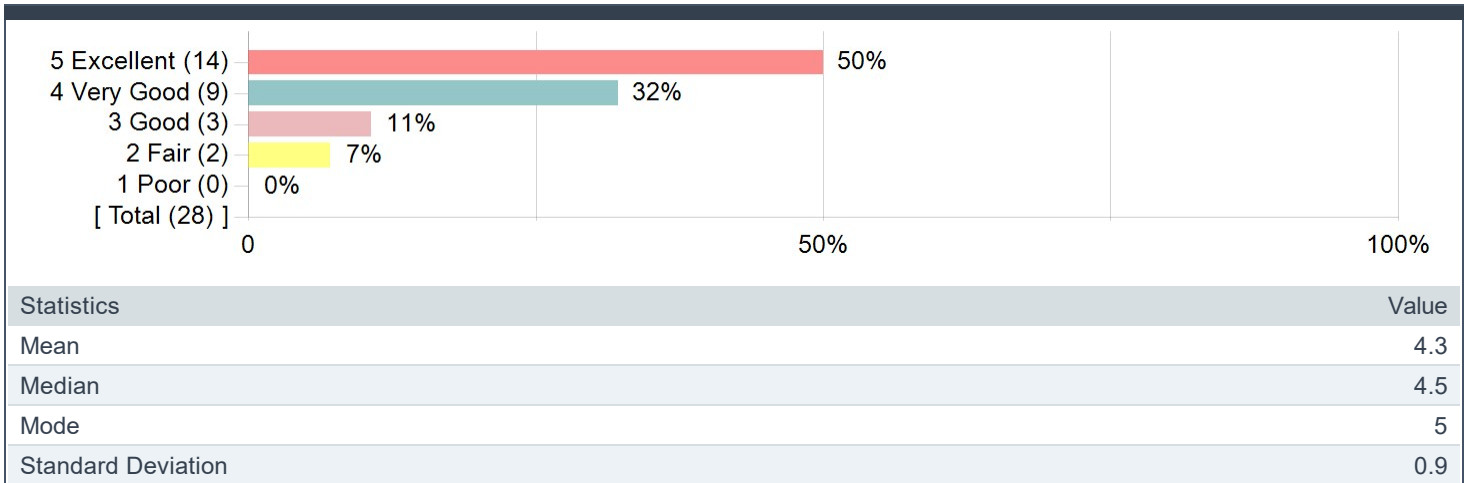
4. Course projects, assignments, tests and/or exams improved my understanding of the course material.



5. Course projects, assignments, tests and/or exams provided opportunity for me to demonstrate an understanding of the course material.

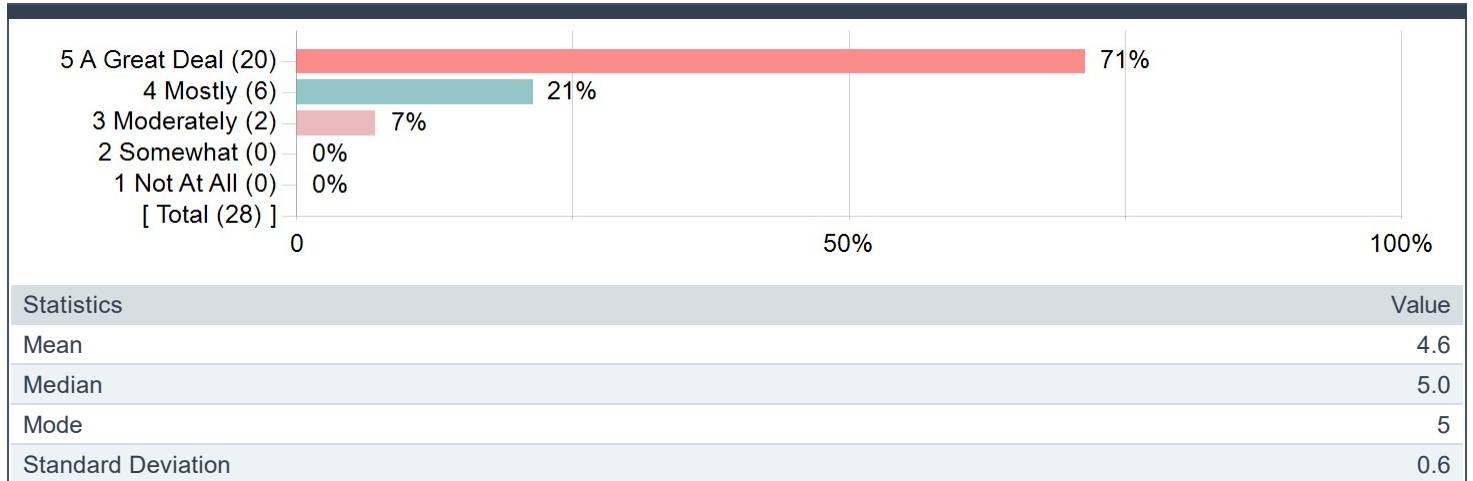


6. Overall, the quality of my learning experience in this course was....

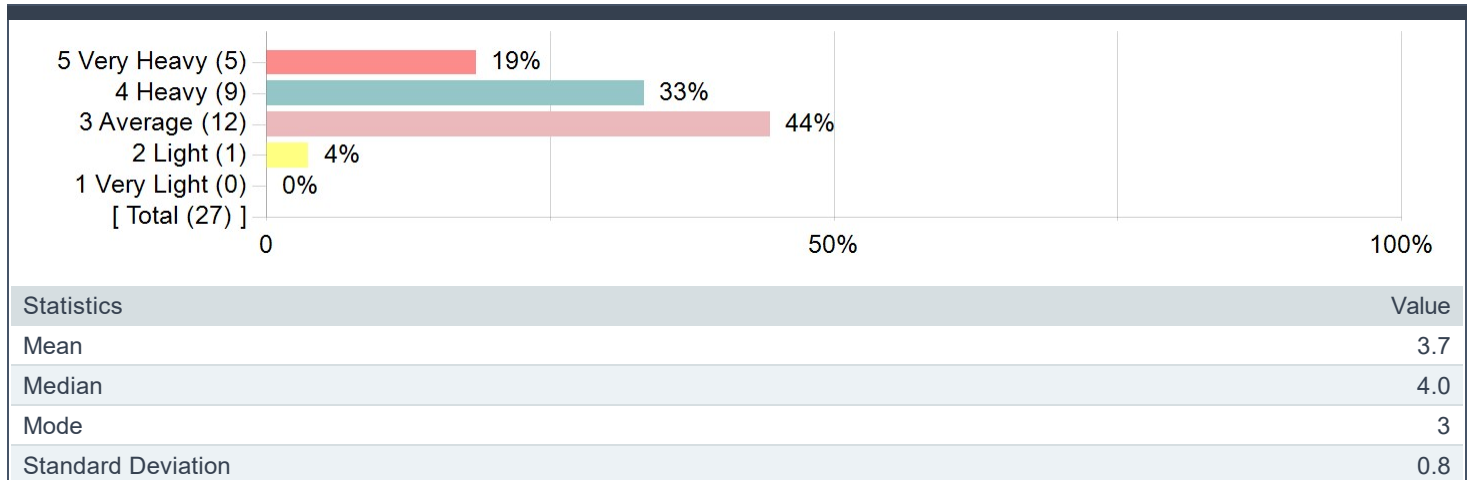


Part B. Divisional Items

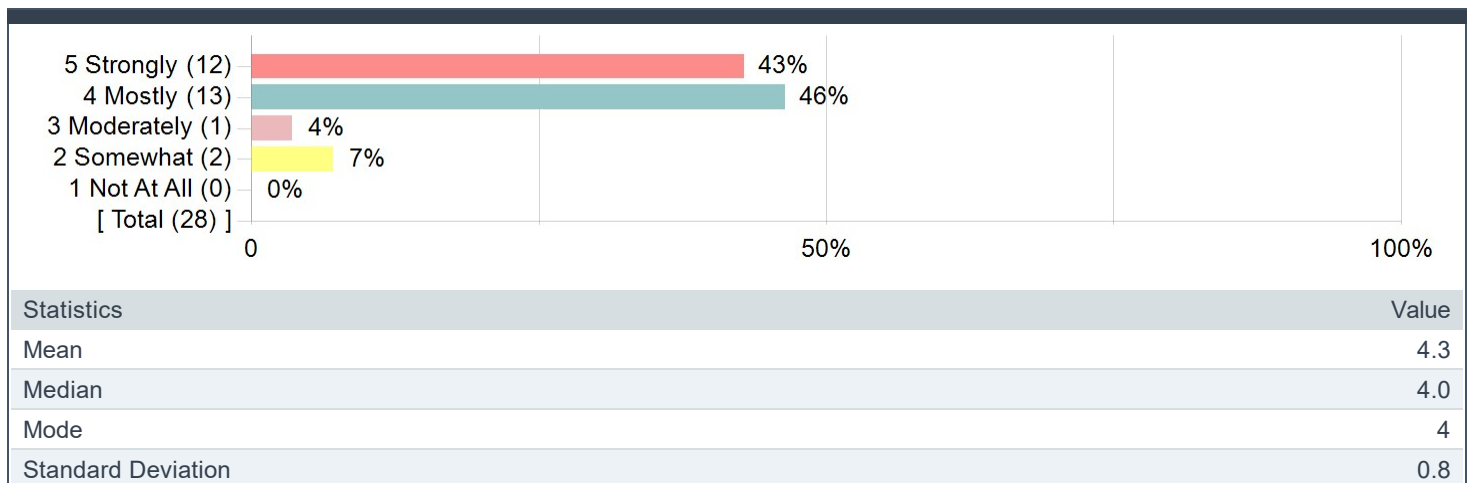
The instructor (**Amir-massoud Farahmand**) generated enthusiasm for learning in the course.



Compared to other courses, the workload for this course was...



I would recommend this course to other students.



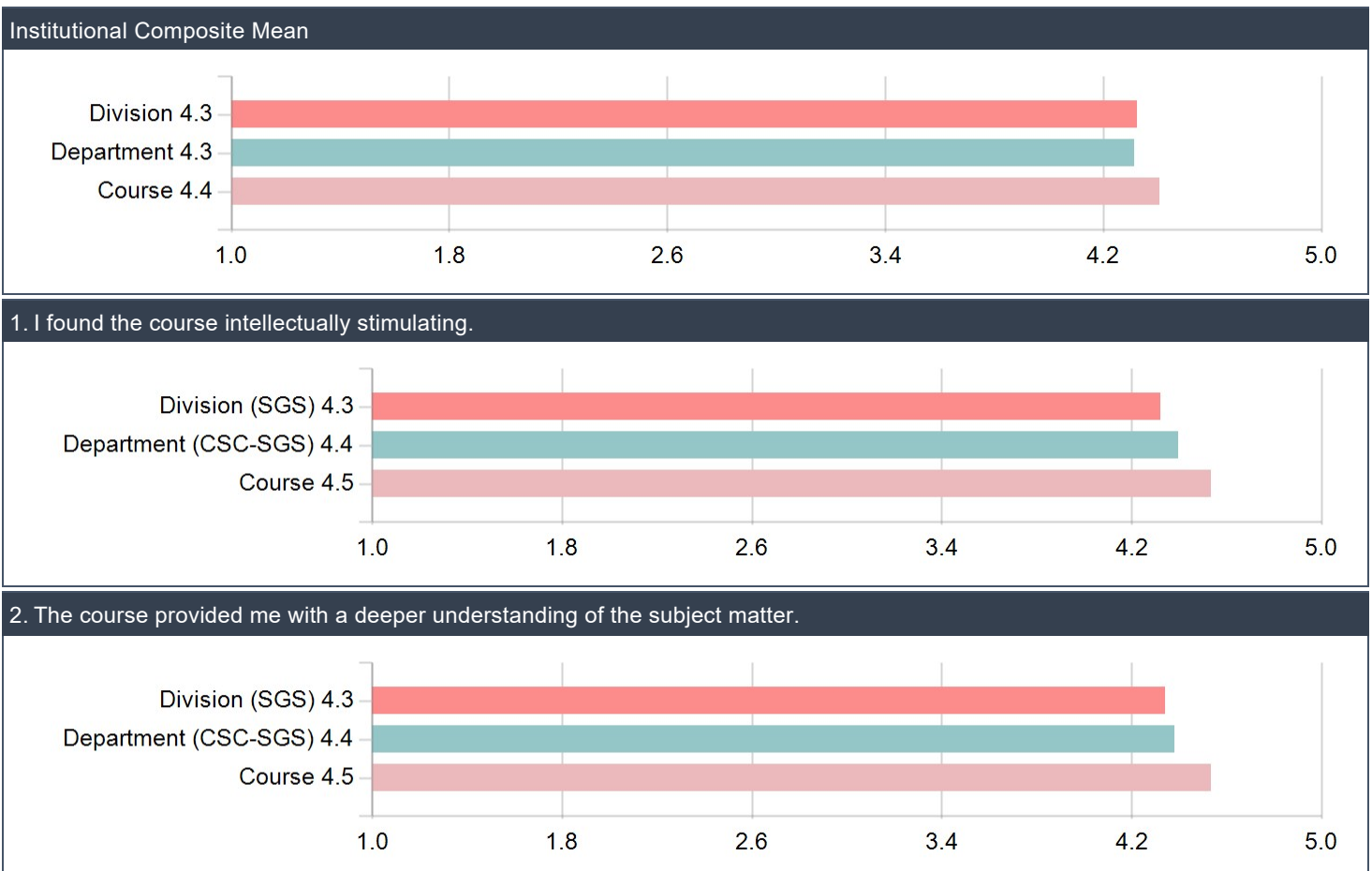
Section 3. Comparative Data

This section provides overall means for given comparators (e.g., division, department) alongside the mean values for a given course. Note that the comparators are calculated by pooling together all individual student survey responses (e.g., student responses for all of the courses in a department are pooled together and the departmental mean responses calculated from that). The provided comparators are thus a measure of the 'average' student experience for a unit or division; they are not a measure of the 'average' course in a unit or division. This calculation has the effect of giving large courses more 'weight' in the calculation of the comparator means. The effect of this on the calculated comparator varies depending on the relative proportion of large or small courses within a unit or division. As such, the departmental and divisional comparative mean values provided on course evaluations should not be regarded as an absolute and definitive benchmark.

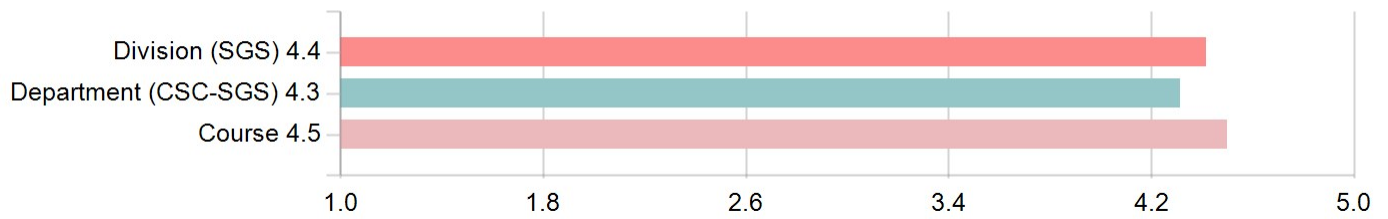
For example, if a department offered only two courses, one with 1000 students who all answered 3.5 and the other with 10 students who all answered 4.5 (so that the means would be 3.5 and 4.5 respectively), then the departmental mean provided on the course evaluations would be 3.51 since the calculation would be $[(3.5 \times 1000) + (4.5 \times 10)] / 1010 = 3.51$ and not $(3.5 + 4.5) / 2 = 4$.

Part A. Core Institutional Items

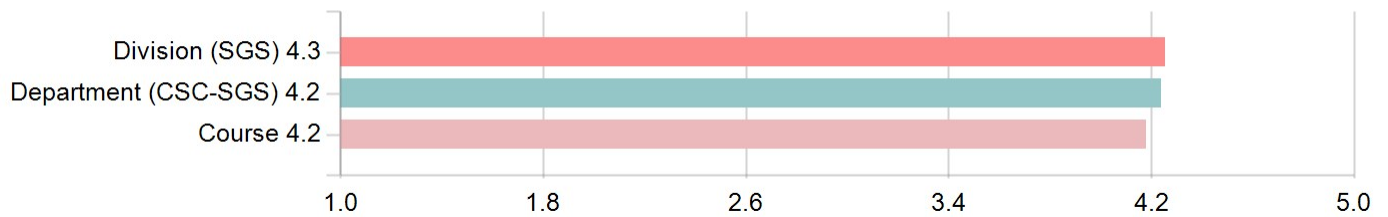
Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal



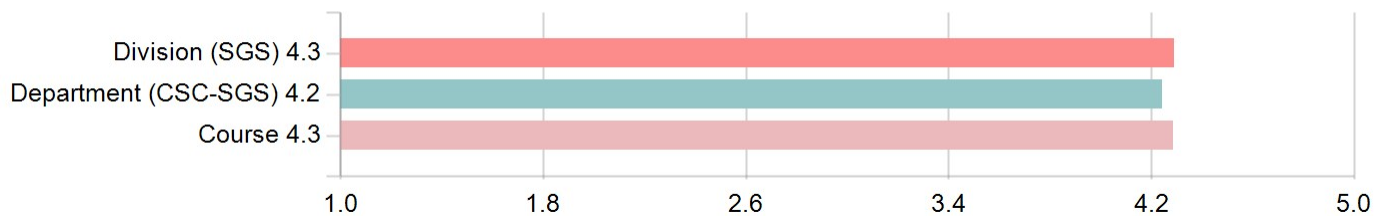
3. The instructor ([Amir-massoud Farahmand](#)) created an atmosphere that was conducive to my learning.



4. Course projects, assignments, tests, and/or exams improved my understanding of the course material.

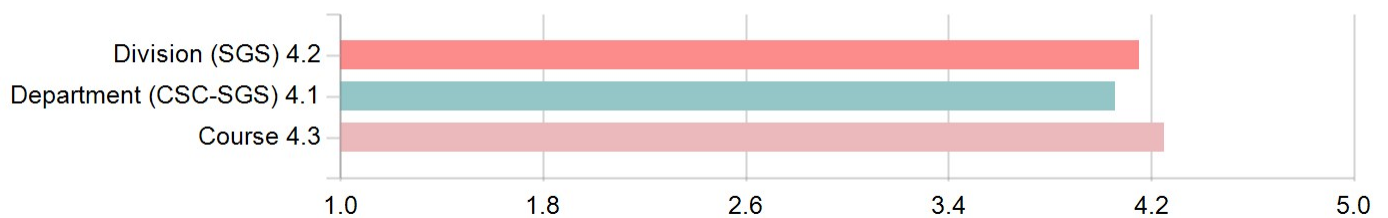


5. Course projects, assignments, tests and/or exams provided opportunity for me to demonstrate an understanding of the course material.



Scale: 1 - Poor 2 - Fair 3 - Good 4 - Very Good 5 - Excellent

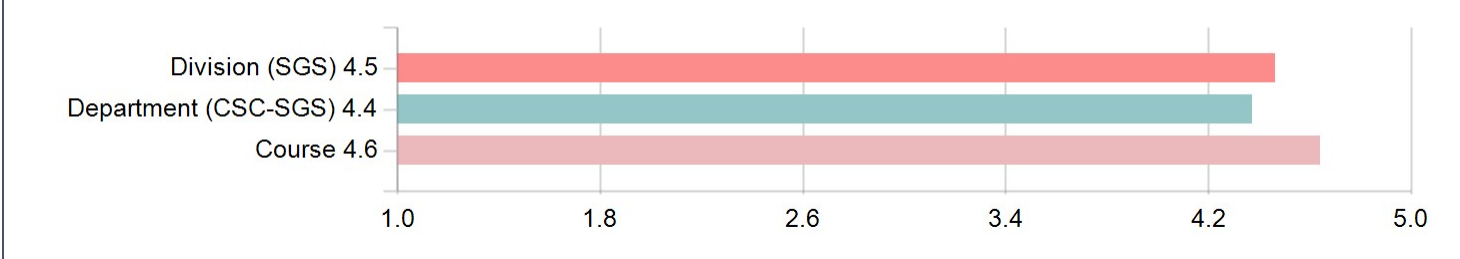
6. Overall, the quality of my learning experience in this course was:



Part B. Divisional Items

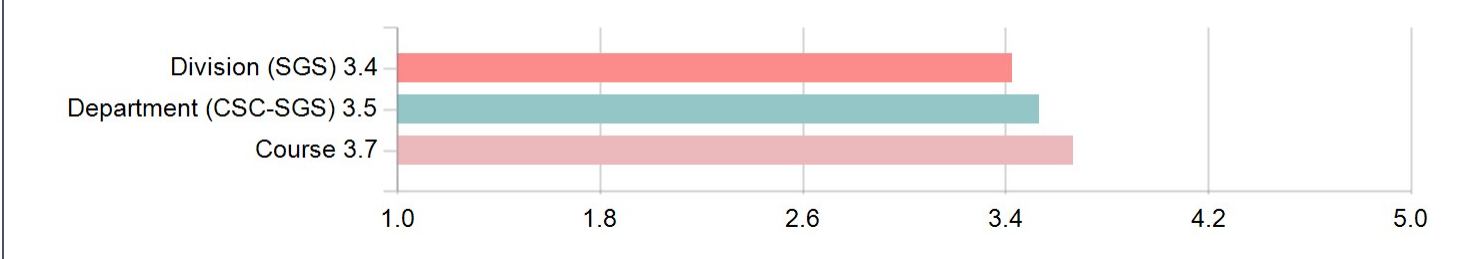
Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - A Great Deal

9. The instructor generated enthusiasm for learning in the course.



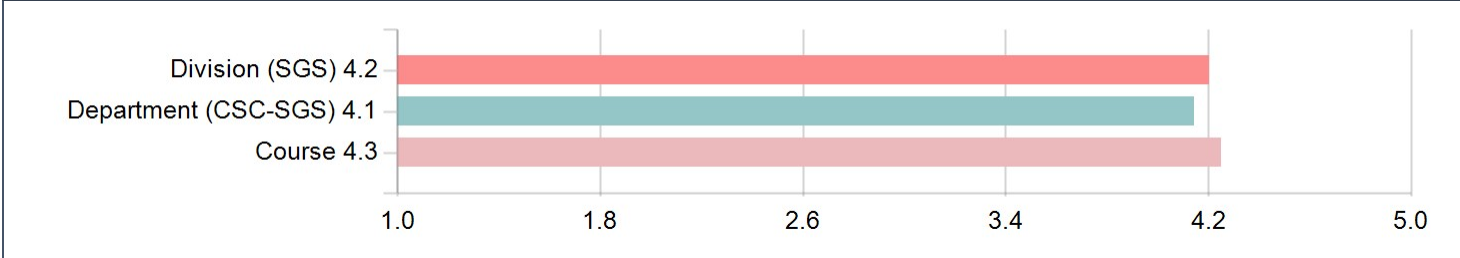
Scale: 1 - Very Light 2 - Light 3 - Average 4 - Heavy 5 - Very Heavy

10. Compared to other courses, the workload for this course was:



Scale: 1 - Not At All 2 - Somewhat 3 - Moderately 4 - Mostly 5 - Strongly

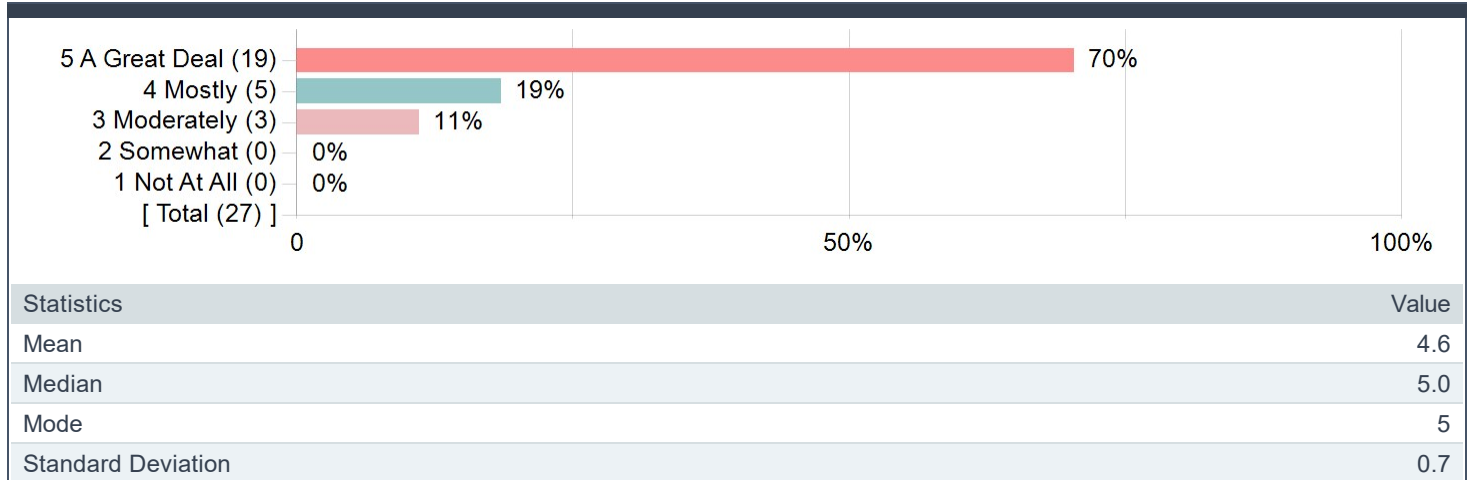
11. I would recommend this course to other students.



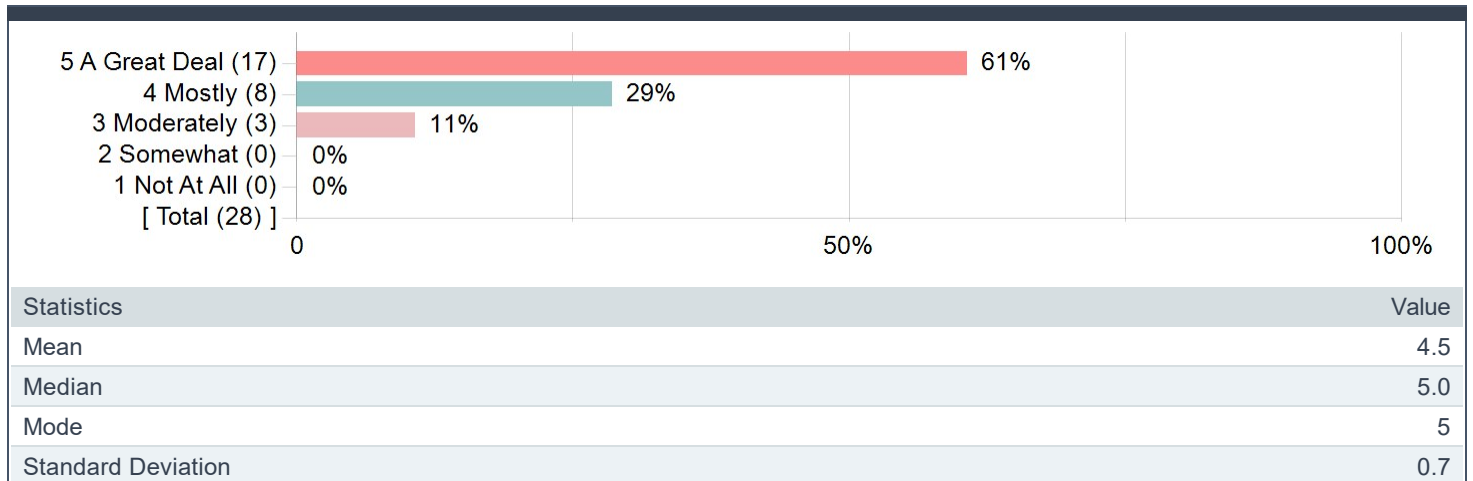
Section 4: Formative Data

These items are optional items which you selected from the item bank during the question personalization period. Note that the results from these items are only reported to you as they are primarily intended to function as personal formative feedback.

C-2. The course instructor ([Amir-massoud Farahmand](#)) explained concepts clearly.



K-6. The course textbook and/or readings contributed to my learning of the subject matter.



X-14. *Overall, the quality of support the teaching assistant provided in this course was:

