# Quick Report for Zhiwu Zhang CROP_SCI 545

Project Title: **College of Agricultural, Human, and Natural Resource Sciences Course Evaluations 2017-2018**
Project Audience: **13**
Responses Received: **13**
Response Ratio: **100%**

**Report Comments**

This Quick Report for Instructors gives a summary of student responses in the course above for each question from the college's Course Evaluation in Blue. If a course has multiple sections, each section has a separate Quick Report. Student comments are provided at the end of the report or at the end of each question group on the report.

# **Instructor Quick Report** for CROP_SCI 545.01;02;03;04;05-PULLM

If you have a question about your Instructor Quick Report please contact your college's course evaluation coordinator, **Alanna Ellis**, or email esg.blue@wsu.edu.

Prepared by: **Enterprise Systems Blue Course Evaluation Team**
Creation Date: **Thu, May 10, 2018**

# Table of Contents



# Rating Scale Definitions

- 5: Always
- 4: Very Often
- 3: Sometimes
- 2: Rarely
- 1: Never
- [NA]

- 5: Strongly Agree
- 4: Mildly Agree
- 3: Neutral
- 2: Mildly Disagree
- 1: Strongly Disagree
- [NA]

# Data: This report provides:

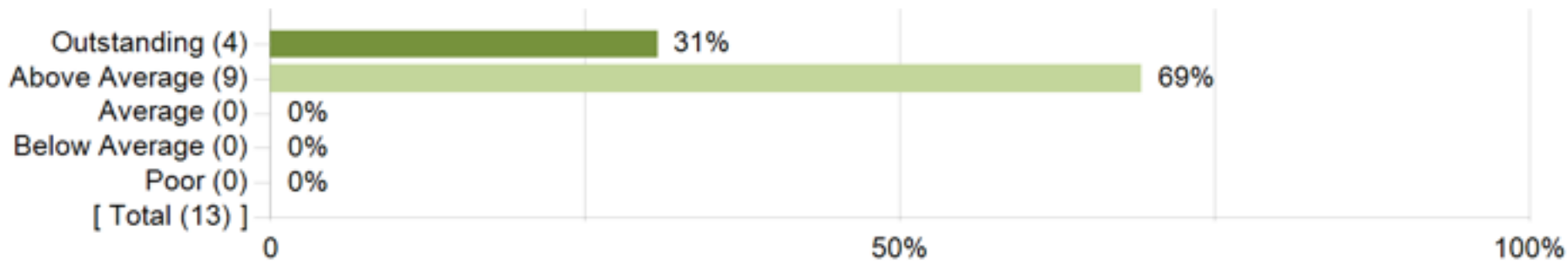
- Frequency distributions of student responses to individual questions
- Mean and median values
- Student comments at the end of each question group
- Overall response rate; and response counts for each question
- See Making Sense of Course Evaluations and Midterm Feedback from Students: A Quick Guide for Instructor

# Notes

| | |
|---|---|
| **Does Not Apply/NA**: | In questions with a “Does Not Apply” choice, the NA count is shown in the frequency graphs but is NOT included in any statistical analysis (mean/median). |
| **Response thresholds to protect student confidentiality**: | If fewer than five (5) students respond to your course evaluation, an Instructor Quick Report is not generated. |
| **Multiple sections**: | If a course has multiple sections, each section has a separate Instructor Quick Report. |
| **Team-taught courses**: | Each instructor receives results only for themselves as instructor and for all other questions about the course or non-instructor-specific topics. |

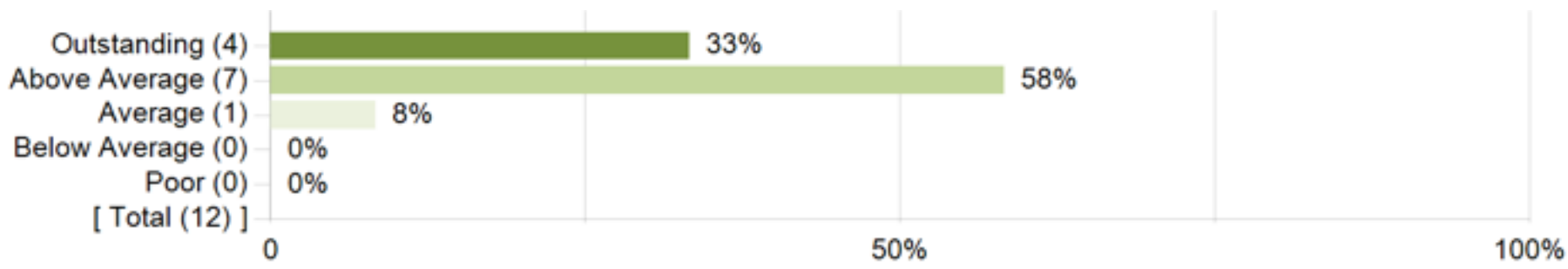
## Overall

### What is your overall rating of the instructor Zhiwu Zhang in this course?




| Statistics | Value |
|---|---|
| Response Count | 13 |
| Mean | 4.3 |
| Median | 4.0 |

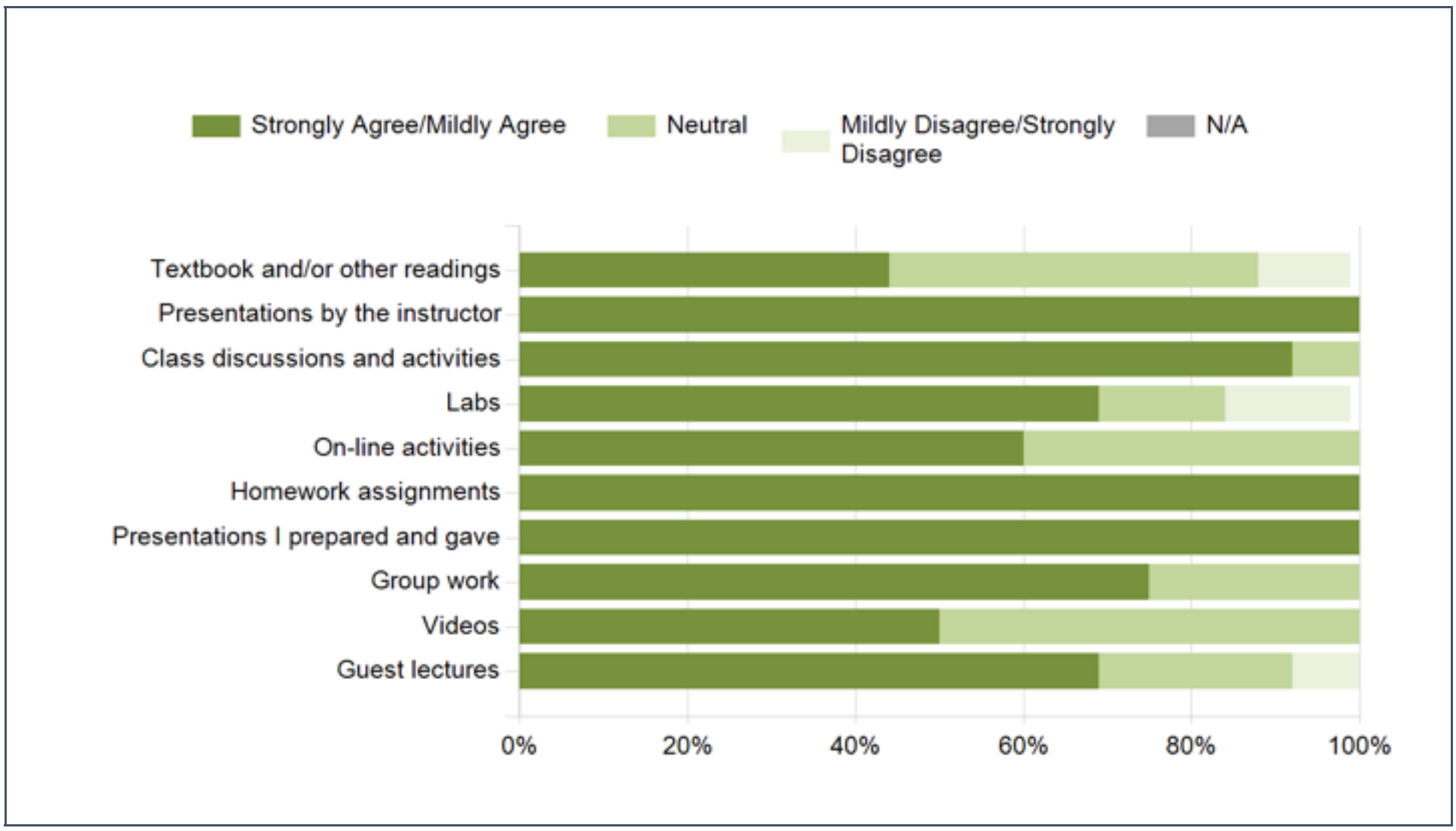
### What is your overall rating of this course?




| Statistics | Value |
|---|---|
| Response Count | 12 |
| Mean | 4.3 |
| Median | 4.0 |

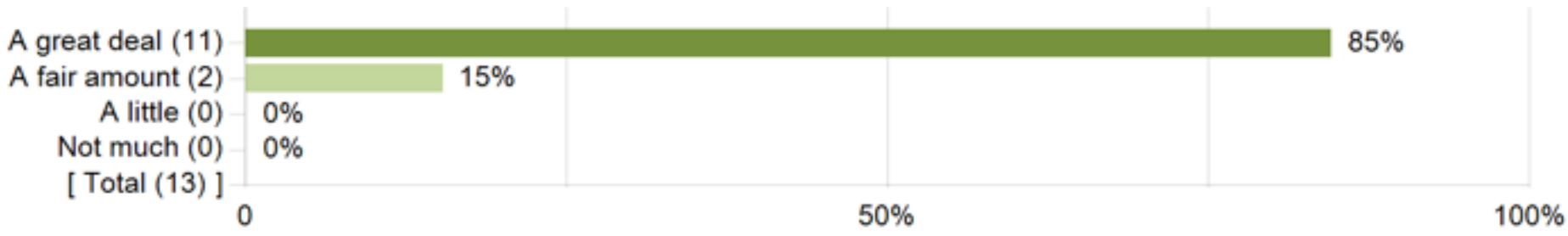
## How strongly do you agree or disagree with each statement about this course?

The following elements of this course help me learn:



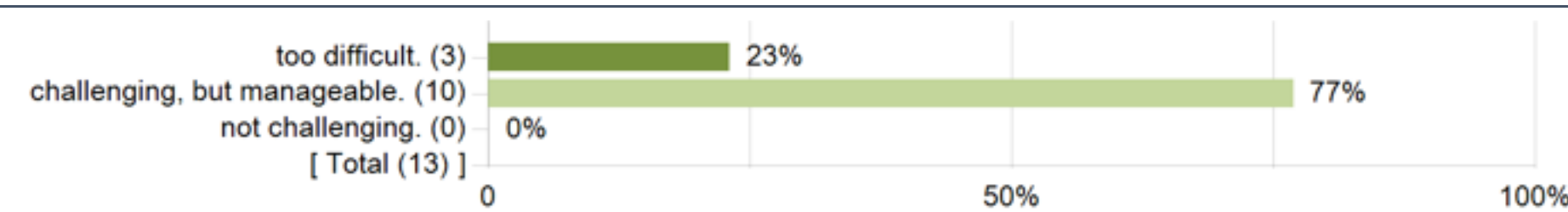
## Overall Student Experience

### How much have you learned -- increased your skills and knowledge -- about the main subject/topics in this course?




| Statistics | Value |
|---|---|
| Response Count | 13 |
| Mean | 3.8 |
| Median | 4.0 |

### Overall, this course has been…




| Statistics | Value |
|---|---|
| Response Count | 13 |

### Please explain your choice above regarding how challenging this course has been.

| Comments |
|---|
| Many students have less or null knowledge about R and less knowledge about statistics so its challenging |
| Advanced concepts and techniques in analysis. Takes a lot of time in R to get things to work. Frustrating when the homework problems are open to interpretation, and different interpretations are presented at different times as the task that needs to be completed. More clear communication needs to be present to avoid confusion and wasted time. |
| R code is challenging to learn but I had some background in Java programming and some R experience in Crop Sci 505. The interpretation are straight forward for the most part if I refer to notes and textbook. |
| The R programming language has a steep learning curve. I really struggled this semester. Hopefully it will be a good experience for me long term. No pain, no gain. |
| The homeworks were sometimes difficult but I was able to do them. |
| The challenging part for me is to understand equations of each model for GWAS |
| In my case, R was brand new to me. Programming became an obstacle, and it should have been just a tool to use.<br>It would be nice to spend more time interpreting the results/outputs instead of explaining the code itself. |
| due to issues in labs/with HWs, this course took by far the most amount of outside class time of any course I've ever taken. Normally, it would be a heavy course load, but inefficiencies with the lab meant TOO MUCH troubleshooting R outside of class. R is a very frustrating platform, and if there is not an efficient way to teach people how to use it for this course, it is extremely difficult to learn while being so frustrated. SO MUCH time was spent troubleshooting R code that could have instead have been used to dive deeper into GWAS papers/literature |
| This course was challenging in terms of concept but not impossible. |
| I would say the course was very challenging, but manageable because the grading was such that my grades did not suffer because of the difficulty. |
| Challenging because the subject matter was a little harder than I expected and the software used in class was something I was not very good at using. |

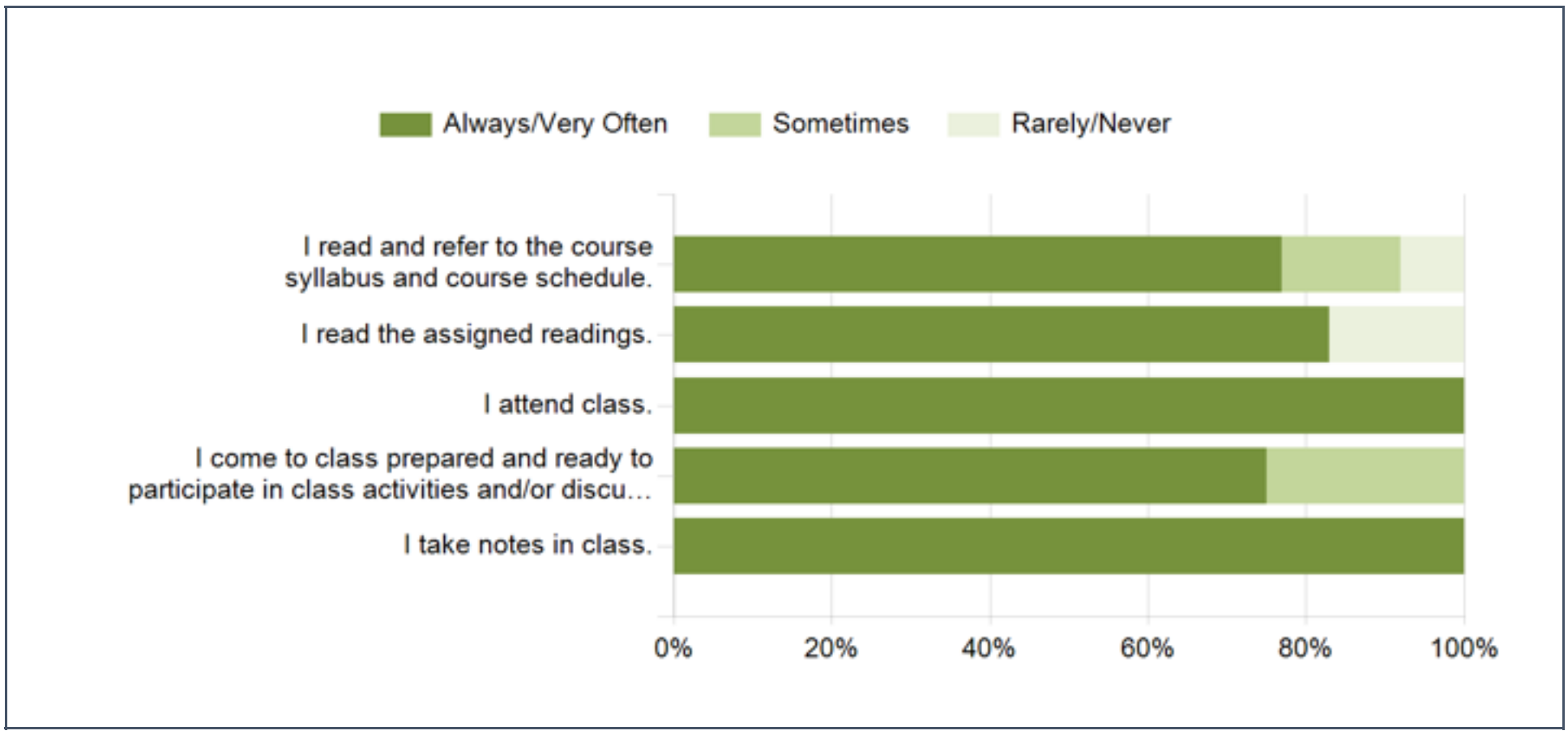
## Overall, what suggestions or changes, if any, would you make to improve the content or format of this course regardless of who is teaching it?

| Comments |
| --- |
| Changes should I strongly recommend<br>1. Explain concepts in a easy manner before getting into R code<br>2. When we look into lecturers slides there is nothing much than code, please link concept and code<br>3. I think the course has 3 parts , Genomics, Statistics and R<br>4. There are very less people who know all 3<br>5. Please design the lectures such that first start with genomics and what statistics we should use to achieve it then show that in R. |
| More examples of different situations and how to approach them. |
| more lectures on how to understand the results |
| More interpretations of GWAS results and its implication into real world settings. |
| I would say that initially there should be a better introduction to how R works. It has a steep learning curve. |
| Maybe spend more time on explaining the statistical models |
| Having lab section is great. But I think the lab section can be shortened a little bit and lecture section can be lengthened |
| Reduce the amount of time on coding. For example, provide partial codes in hw and have students work out the rest. Put more time on explaining students the meaning of all the outputs. |
| The TA for this course needs to have appropriate experience necessary to teach the other students in the course. Choosing an appropriate TA can make or break this course, and I felt the TA choice this year made the course singificantly more difficult than it should have been. Far too much time is spent just troubleshooting R code/trying to get TOO MANY R packages just to work, that the context/content is often lost because R is too frustrating. Less time struggling with R and more time going into literature/real life examples would have been really nice. More of an emphasis on what/why we are doing R, and less emphasis on actually getting all of the R code to work. Also, if Zhiwu had practiced his presentations more, class would have been significantly more easy to understand. |
| I think the most important thing that needs to change is that the TA needs to have taken the class already or be more experienced in the content, not learning along with the students. The homework assignments had complications that delayed completion and increased stress levels. These complications could have been avoided if the homework had previously been run by the professor or TA. |

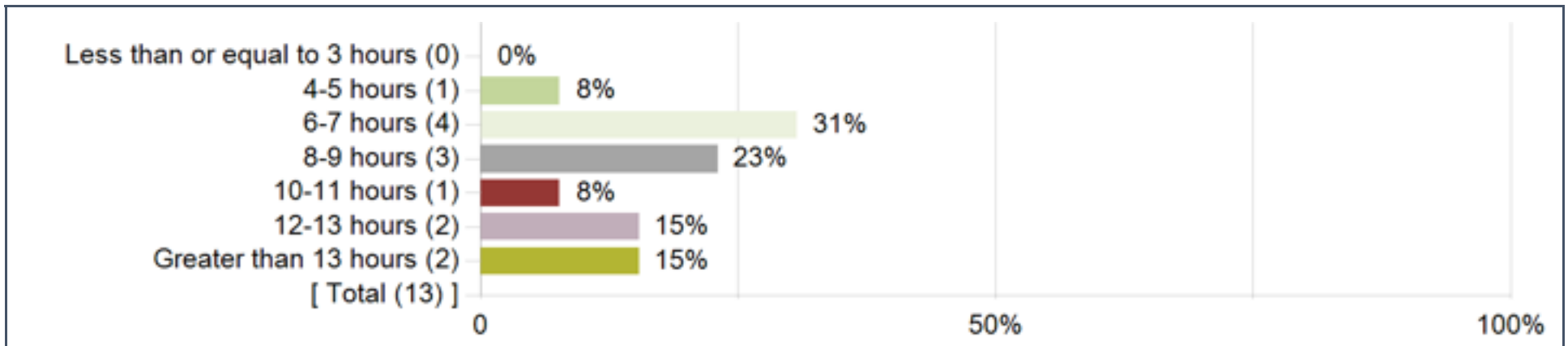
## Student Effort and Responsibility

### How often do you do the following to learn in this course, CROP_SCI 545 (6182;6183;6184;6185;6186) Statistical Genomics?

| | Count | Median | Mean | Always/Very Often | % | Sometimes | % | Rarely/Never | % |
|---|---|---|---|---|---|---|---|---|---|
| I read and refer to the course syllabus and course schedule. | 13 | 5.0 | 4.2 | 10 | 77 % | 2 | 15 % | 1 | 8 % |
| I read the assigned readings. | 12 | 4.0 | 4.0 | 10 | 83 % | 0 | 0 % | 2 | 17 % |
| I attend class. | 12 | 5.0 | 4.8 | 12 | 100 % | 0 | 0 % | 0 | 0 % |
| I come to class prepared and ready to participate in class activities and/or discussion. | 12 | 4.0 | 4.2 | 9 | 75 % | 3 | 25 % | 0 | 0 % |
| I take notes in class. | 12 | 5.0 | 4.8 | 12 | 100 % | 0 | 0 % | 0 | 0 % |

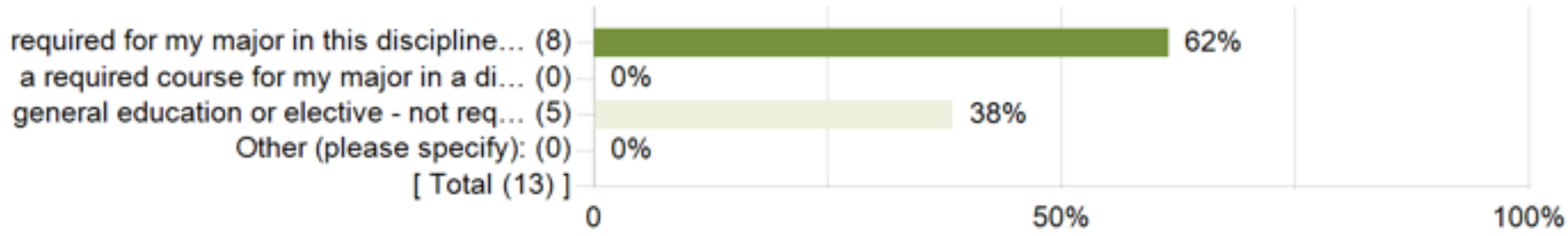



### Typically, how much time PER WEEK do you spend on this course outside of class?




| Statistics | Value |
|---|---|
| Response Count | 13 |

## This course is...




| Statistics | Value |
|---|---|
| Response Count | 13 |

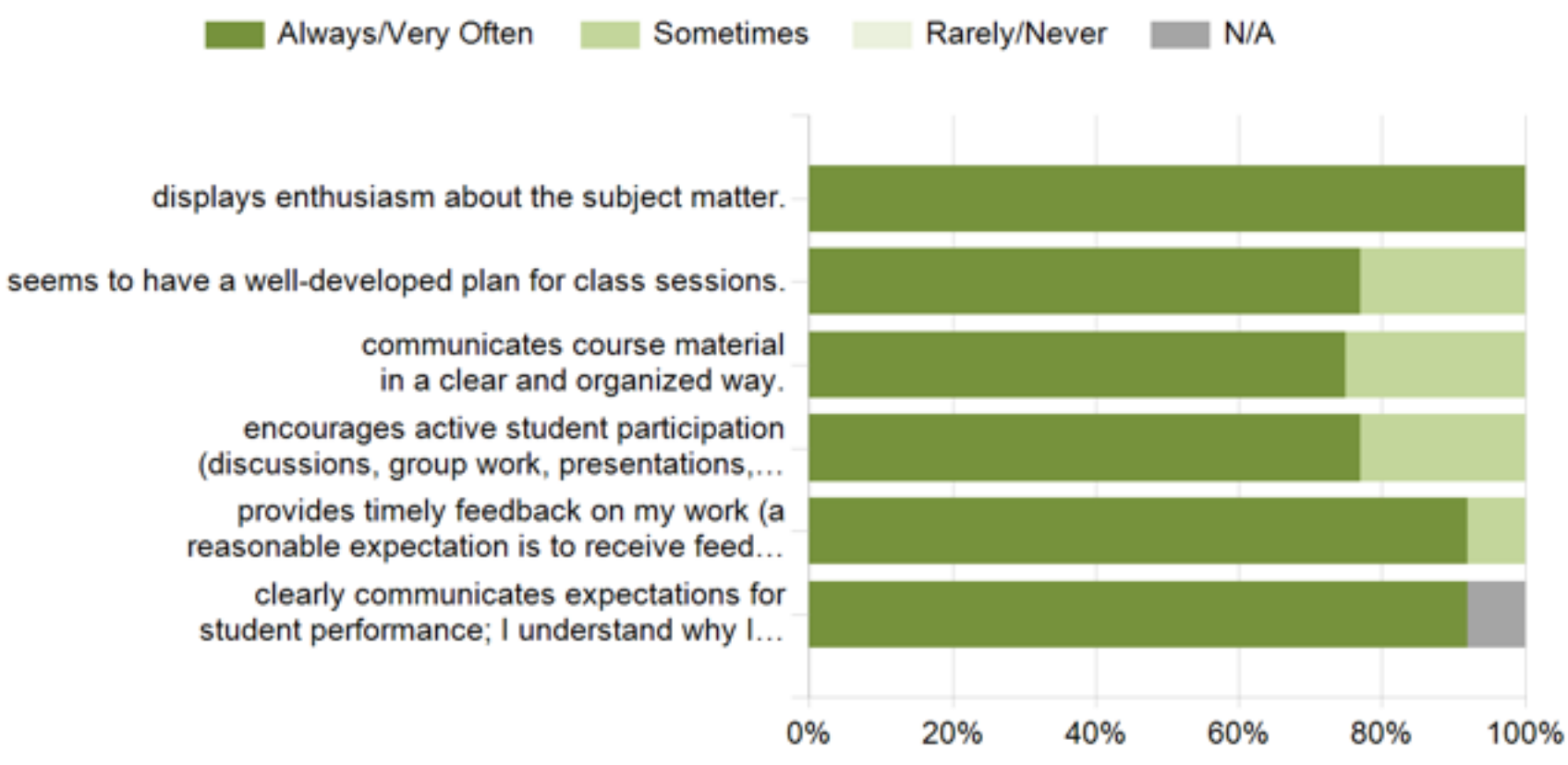
## Questions about the Instructor

This section provides two summary views followed by breakdowns by question.

### How often does your instructor Zhiwu Zhang do the following?

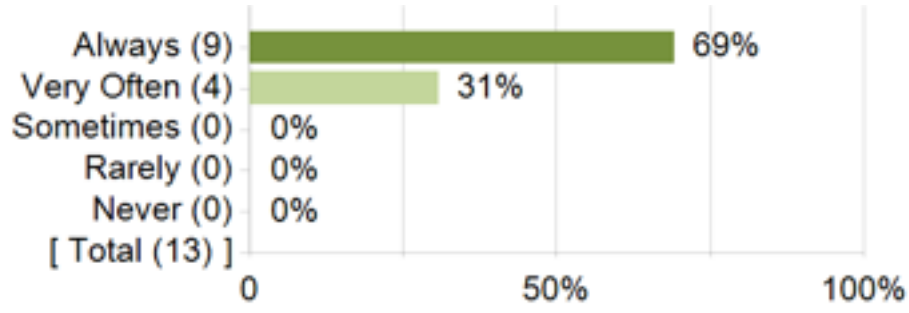
My Instructor...

| | Count | Median | Mean | Always/Very Often | % | Sometimes | % | Rarely/Never | % |
|---|---|---|---|---|---|---|---|---|---|
| displays enthusiasm about the subject matter. | 13 | 5.0 | 4.7 | 13 | 100 % | 0 | 0 % | 0 | 0 % |
| seems to have a well-developed plan for class sessions. | 13 | 5.0 | 4.3 | 10 | 77 % | 3 | 23 % | 0 | 0 % |
| communicates course material in a clear and organized way. | 12 | 4.0 | 3.9 | 9 | 75 % | 3 | 25 % | 0 | 0 % |
| encourages active student participation (discussions, group work, presentations, questions, etc.). | 13 | 4.0 | 4.2 | 10 | 77 % | 3 | 23 % | 0 | 0 % |
| provides timely feedback on my work (a reasonable expectation is to receive feedback on an assignment within 2 weeks). | 13 | 4.0 | 4.4 | 12 | 92 % | 1 | 8 % | 0 | 0 % |
| clearly communicates expectations for student performance; I understand why I get the grades I get. | 12 | 5.0 | 4.8 | 12 | 100 % | 0 | 0 % | 0 | 0 % |



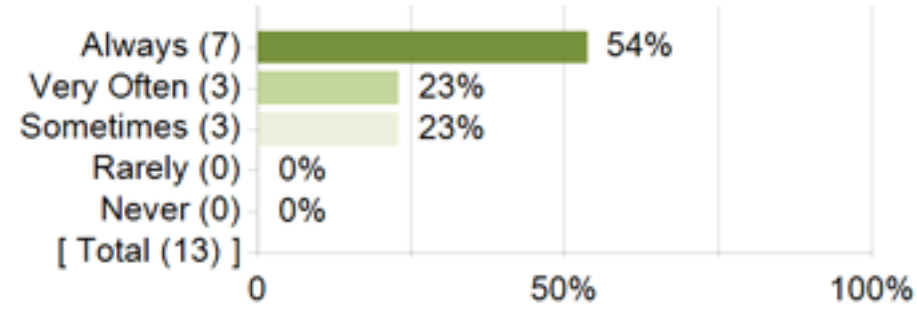
# How often does your instructor Zhiwu Zhang do the following?

## 1. displays enthusiasm about the subject matter.



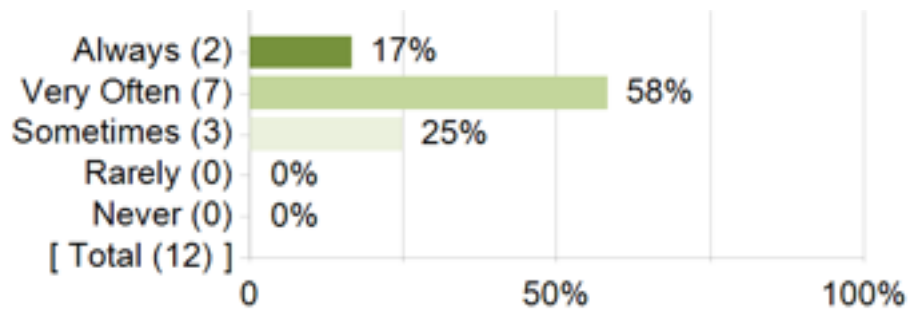

| Statistics | Value |
|---|---|
| Response Count | 13 |
| Mean | 4.7 |
| Median | 5.0 |

## 2. seems to have a well-developed plan for class sessions.



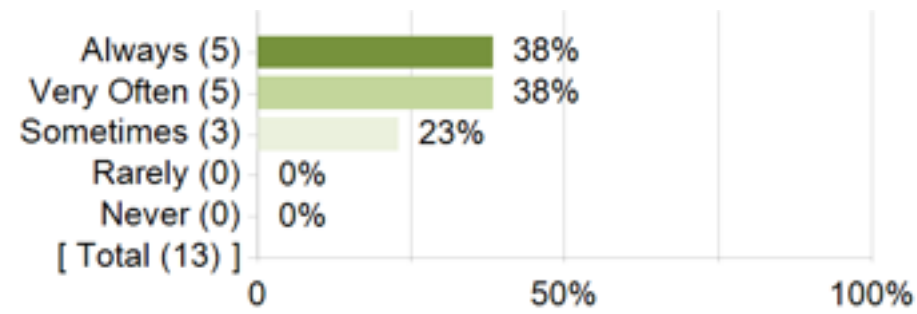

| Statistics | Value |
|---|---|
| Response Count | 13 |
| Mean | 4.3 |
| Median | 5.0 |

## 3. communicates course material in a clear and organized way.



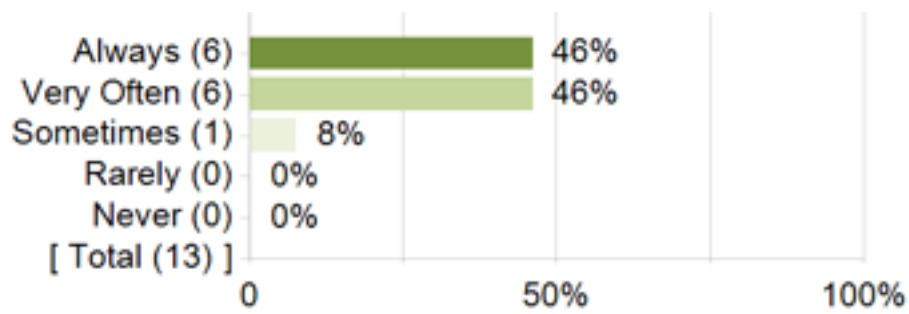

| Statistics | Value |
|---|---|
| Response Count | 12 |
| Mean | 3.9 |
| Median | 4.0 |

## 4. encourages active student participation (discussions, group work, presentations, questions, etc.).



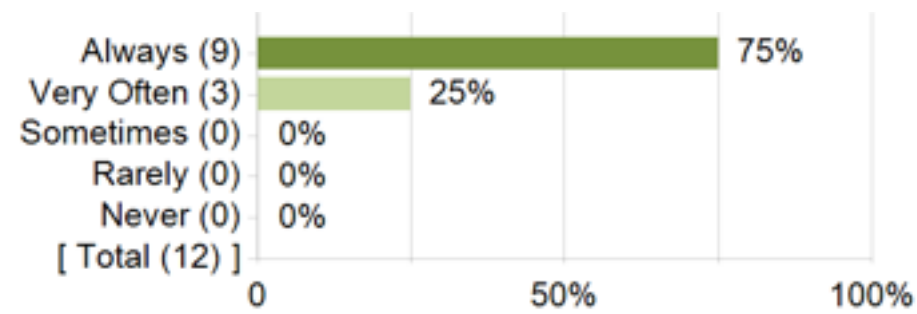

| Statistics | Value |
|---|---|
| Response Count | 13 |
| Mean | 4.2 |
| Median | 4.0 |

## 5. provides timely feedback on my work (a reasonable expectation is to receive feedback on an assignment within 2 weeks).




| Statistics | Value |
|---|---|
| Response Count | 13 |
| Mean | 4.4 |
| Median | 4.0 |

## 6. clearly communicates expectations for student performance; I understand why I get the grades I get.




| Statistics | Value |
|---|---|
| Response Count | 12 |
| Mean | 4.8 |
| Median | 5.0 |

## What are the strengths of Zhiwu Zhang as an instructor?

| Comments |
| --- |
| He is a very good instructor and tries hard to make students understand, |
| Flexible, easy to interact with and approach with questions, curious and interested in research outside of his discipline. |
| knowledgeable |
| Most of the material taught in class is the professors work. |
| Zhiwu has a good heart and does his best to explain things clearly. He is always available for his students, and the structure of his lecture slides are good, although the material is often too complicated for me to understand. |
| Knowlegeable |
| Very enthusiastic and understanding of the students' need for time to complete the homework. |
| He is humorous and knowledgeable in the field. Also, he is good at highlighting main ideas in the lectures. |
| Dr. Zhang is extremely knowledgeable with Stat Genomics and improving softwares. Would be good to have Dr. Zhang as a resource for the future reference when my research reaches that point. |
| EXTREMELY knowledgable. vast experience in genomics. |
| Dr. Zhang displays an obvious desire to explain the concepts in a way the class understands. He clearly puts time into the lecture material, specifically when it comes to concepts that might be difficult for most of the students to understand. He is approachable and always open to questions. |
| His knowledge, expertise, and devotion to students. |
| Very knowledgeable about the subject matter. |

## What are one or two specific things the instructor, Zhiwu Zhang, could do to improve his/her teaching?

| Comments |
| --- |
| but he still has to work on the conceptual side of the course and try to put into more efforts to teach the concepts |
| Add time to lecture to foster more discussion and ensure that everyone is on the same page. |
| give examples for the theories |
| Talk about interpretation and application of GWAS results with real examples. |
| I would say that Zhiwu could do better at orienting the students to the content of the slides. In many instances, the x and y axes were not clearly labeled or clearly explained. At that point, I just get lost. Also, there are a number of very complicated equations that were covered very briefly.<br><br>I should also point out that the notation is very confusing for someone who has not majored in statistics, explanation of the notation would be very helpful. |
| Explain data formats in detail.<br>Try to have the TA do the homework weeks before its due or try himself to find problems |
| provide more specific/descriptive questions and prompts for the homework. Also more words/descriptions of the concepts on the slides. |
| It is hard for students who dont have strong background of STAT to understand equations behind GWAS. It would be great if he is able to find better way to explain the concepts and equations. |
| It'd be helpful to fill in some conceptual knowledge before diving into deeper levels. |
| better at communicating with students = english was a minor issue, but bigger problem was not looking through slides ahead of class and make sure he knows what he will say, before class starts. sometimes felt that he was surprised by what came up on the slides, and then did not have an efficient method to communicate what is on them. since english is not the first language, practicing presentation more would be big improvement.<br><br>at the end of each day, he had highlights, but kind of glossed over them quickly or not at all. spend at least the last 5 minutes of class recapping/summarizing and explaining any questions people have. often I would leave class looking at the highlights and not feeling comfortable with any of them |
| More preparation for class so that lectures are easier to understand and end on time. |
| While he was very thorough with giving us R theory, I think that also suggesting papers that help with the genomic theory might have been helpful. |

## Questions about the Course

### How strongly do you agree or disagree with each statement about this course? The following elements of this course help me learn:

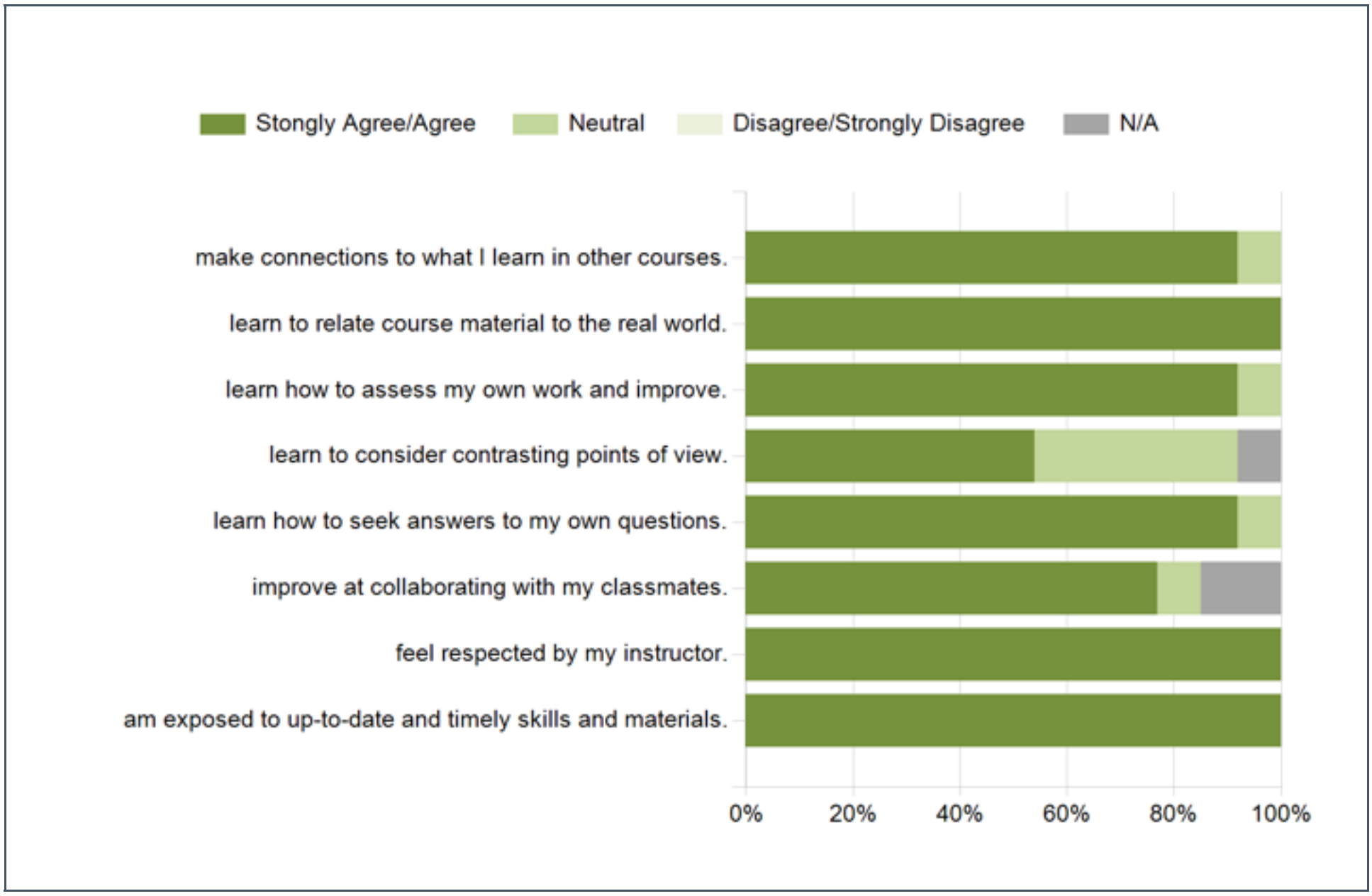
| | Resp | Median | Mean | Strongly Agree/Mildly Agree | % | Neutral | % | Mildly Disagree/Strongly Disagree | % |
|---|---|---|---|---|---|---|---|---|---|
| Textbook and/or other readings | 9 | 3.0 | 3.4 | 4 | 44 % | 4 | 44 % | 1 | 11 % |
| Presentations by the instructor | 12 | 5.0 | 4.6 | 12 | 100 % | 0 | 0 % | 0 | 0 % |
| Class discussions and activities | 13 | 5.0 | 4.5 | 12 | 92 % | 1 | 8 % | 0 | 0 % |
| Labs | 13 | 5.0 | 4.0 | 9 | 69 % | 2 | 15 % | 2 | 15 % |
| On-line activities | 5 | 4.0 | 3.8 | 3 | 60 % | 2 | 40 % | 0 | 0 % |
| Homework assignments | 13 | 5.0 | 4.5 | 13 | 100 % | 0 | 0 % | 0 | 0 % |
| Presentations I prepared and gave | 3 | 4.0 | 4.0 | 3 | 100 % | 0 | 0 % | 0 | 0 % |
| Group work | 12 | 4.0 | 3.9 | 9 | 75 % | 3 | 25 % | 0 | 0 % |
| Videos | 6 | 3.5 | 3.7 | 3 | 50 % | 3 | 50 % | 0 | 0 % |
| Guest lectures | 13 | 4.0 | 3.8 | 9 | 69 % | 3 | 23 % | 1 | 8 % |

## Please provide comments about what elements of the course did or did not help you learn:

| Comments |
| --- |
| The homeworks would be a more ffective learning tool if the code framework was more clearly presented, so that time could be spent exploring the concepts using the code rather than writing the code and spending the majority of time trouble shooting. The largest barrier to learning and exploring the concepts is making the code work. Presenting a working script to students so they can then go forth and use that code as a tool to investigate questions and explore the concepts would facilitate learning. For students with R experience, presenting a challenge for coding certainly promotes creativity and critical thinking. For students without a strong background in R, those sorts of problems are detrimental to the learning process. It's a hard balance when presented with a class of varying strengths. |
| Discussion and participation helps but it is hard to talk about the material to absorb information as a learning tool. It takes on average 17 different ways of reviewing material to learn it. These statements are just review for the material. I usually will write and re–write all the material on notebook paper until I can recite it from memory in combination with these statements. |
| Having the homework from the previous year really helped. The TA was awesome. |
| The labs and homework helped a lot in understanding the material. The lectures were pretty helpful but hard to follow sometimes. The book was not very helpful. |
| Both lecture and lab help a lot in terms of learning GWAS |
| It'd be nice to emphasize interpreting the output of all the analysis. Not just go over once but multiple times to remind students. |
| the lab was an extremely ineffiencet learning experience. next time, be sure that the TA has either taken the course before, or has a very solid understanding of genomics AND plant breeding. song was an amazing TA, I don't want to discredit her because she tried so hard and obviously put in an extraordinary amount of effort into TAing the class. but she did not have the prereqs I would like to see in a TA for this course. we spent way too much time in lab troubleshooting issues as a group. The TA should be able to help solve problems, not be struggling with the students. often, it was other students in the class that were teaching the rest of the class in lab instead of the TA. having a more prepared/experience TA would make the lab a better learning experience instead of massively frustrating and confusing |
| Mark Swanson's lecture was very helpful, but most lectures were a little hard to follow. The homework, however, is where I learned the most. While doing the homework, I began to understand the lecture slides better. |
| I think the labs and activities did greatly help me understand the computer aspect of the class, but sometimes I did struggle with genomic theory. |

## How strongly do you agree or disagree with each statement about this course?

In this course, I ...



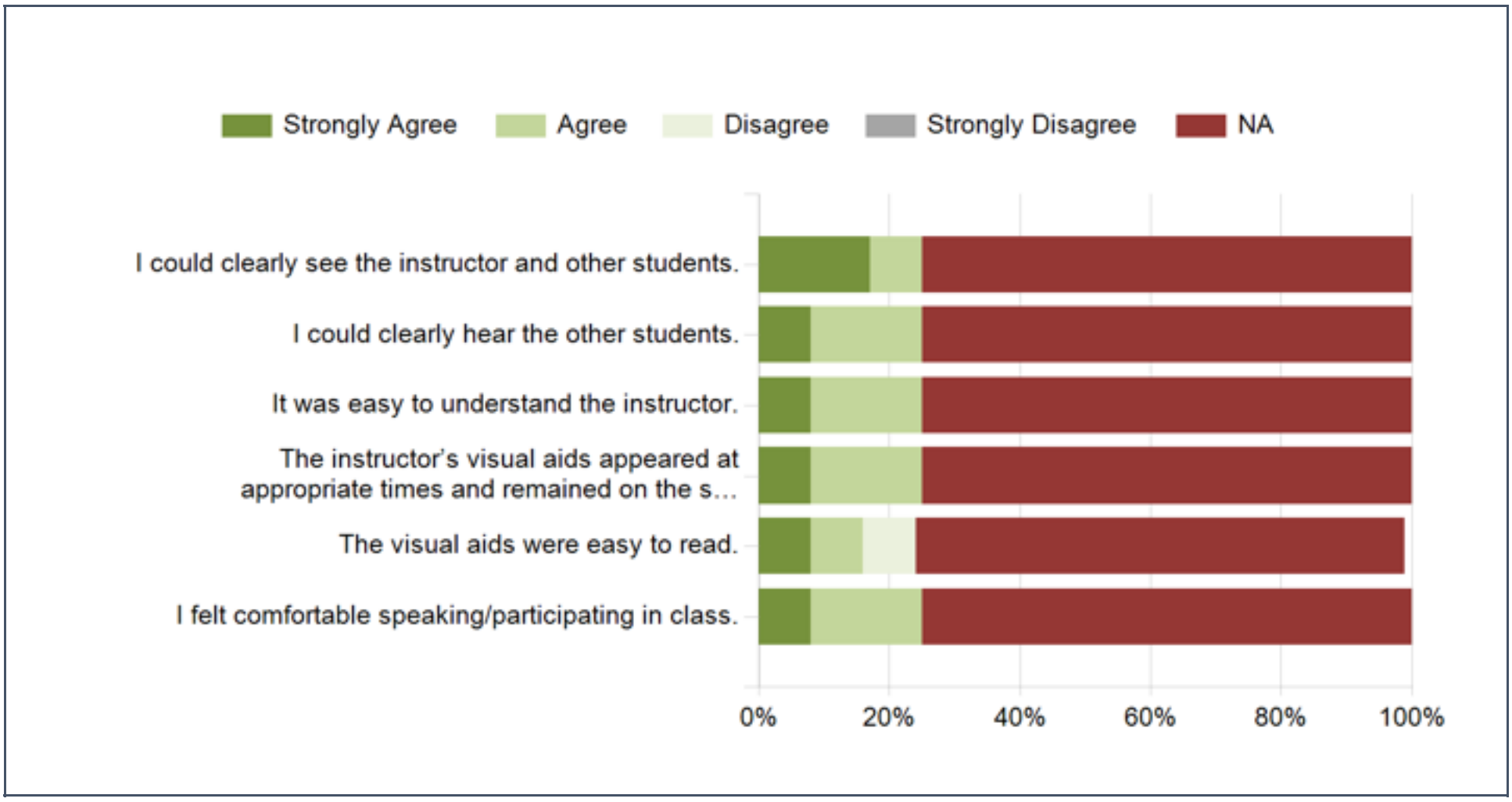

## Please comment on which skill/item above is particularly valuable to you and why it is valuable.

| Comments |
| --- |
| This course has helped me think critically in R and use this tool more effectively. |
| This class was valuable for my research and the material is up to date and easily usable. |
| "learn how to assess my own work and improve" is particularly valuable to me. The models and codes I learned from class are really helpful to solve problems in my own research. |
| It'd be helpful to teach us how to format our documents from the very beginning. In my case, I still haven't known how I should organize my phenotyping data from research, and it comes before I am able to do all the analysis. |
| connections to other things and real life is very important. stats seems to be "in the clouds" too often, and this class was a good connection betweeen statistical theory and real life pracitcality. |
| The entire course covered material that was directly applicable to my research, so it was exciting to take away new ideas from class and try it out on my research. |
| The most valuable item above is making connections to what I have learned in other classes because this class taught us how to apply specific concepts we learn to data analysis. |
| I think being able to relate coursework to real world skills or jobs is important because it helps validate why you are learning what you are learning. |

## AMS Student Experience

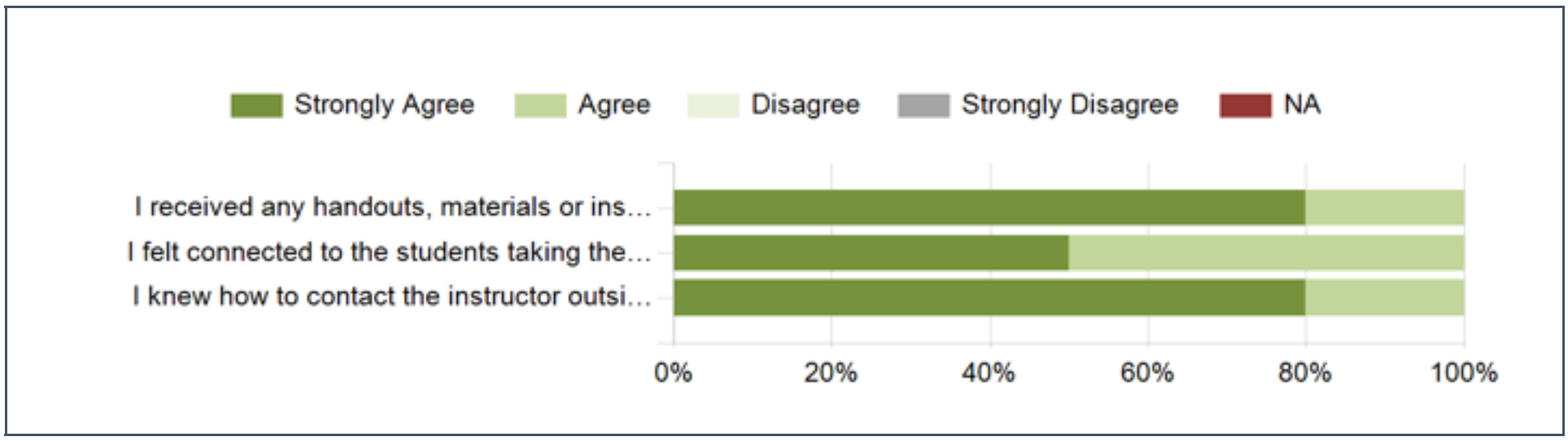
**Please provide feedback about your experience as a student participating via video-conferencing. (Results may be shared with the instructor, department/college, and Global Campus.)**

| | Resp | Mean | Median | Strongly Agree | % | Agree | % | Disagree | % | Strongly Disagree | % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I could clearly see the instructor and other students. | 3 | 3.7 | 4.0 | 2 | 67 % | 1 | 33 % | 0 | 0 % | 0 | 0 % |
| I could clearly hear the other students. | 3 | 3.3 | 3.0 | 1 | 33 % | 2 | 67 % | 0 | 0 % | 0 | 0 % |
| It was easy to understand the instructor. | 3 | 3.3 | 3.0 | 1 | 33 % | 2 | 67 % | 0 | 0 % | 0 | 0 % |
| The instructor's visual aids appeared at appropriate times and remained on the screen as long as necessary. | 3 | 3.3 | 3.0 | 1 | 33 % | 2 | 67 % | 0 | 0 % | 0 | 0 % |
| The visual aids were easy to read. | 3 | 3.0 | 3.0 | 1 | 33 % | 1 | 33 % | 1 | 33 % | 0 | 0 % |
| I felt comfortable speaking/participating in class. | 3 | 3.3 | 3.0 | 1 | 33 % | 2 | 67 % | 0 | 0 % | 0 | 0 % |



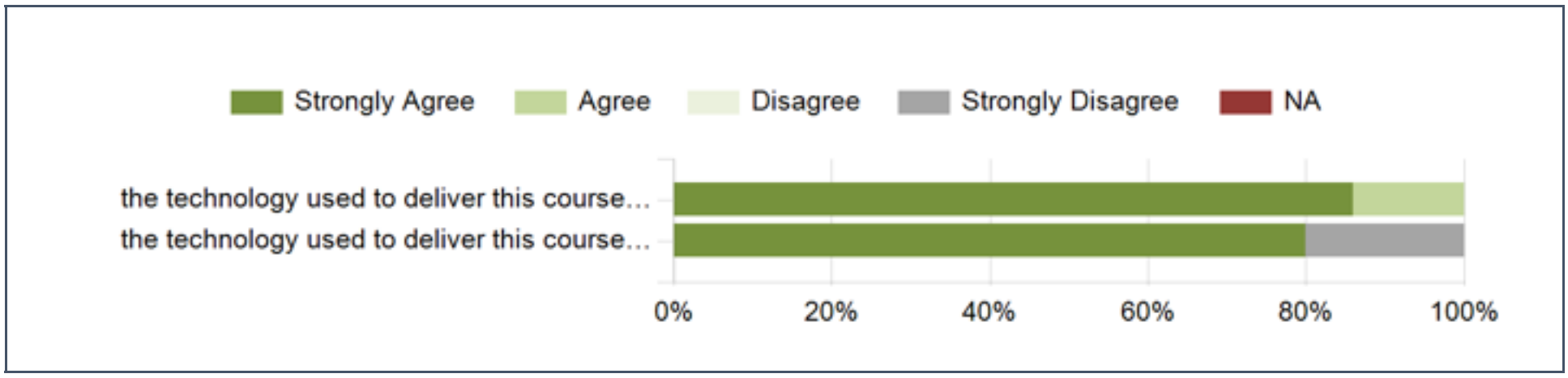
## Please answer the following questions...

| | Count | Strongly Agree | % | Agree | % | Disagree | % | Strongly Disagree | % |
|---|---|---|---|---|---|---|---|---|---|
| I received any handouts, materials or instructions, required to complete the course in a timely manner. | 5 | 4 | 80 % | 1 | 20 % | 0 | 0 % | 0 | 0 % |
| I felt connected to the students taking the course from other locations. | 2 | 1 | 50 % | 1 | 50 % | 0 | 0 % | 0 | 0 % |
| I knew how to contact the instructor outside of class (office hours) for help. | 5 | 4 | 80 % | 1 | 20 % | 0 | 0 % | 0 | 0 % |




## Overall...

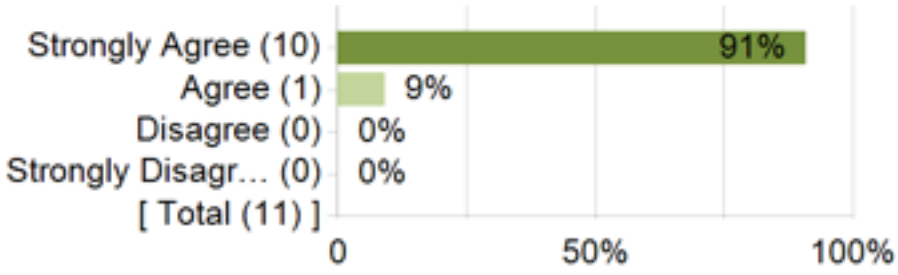
| | Count | Strongly Agree | % | Agree | % | Disagree | % | Strongly Disagree | % |
|---|---|---|---|---|---|---|---|---|---|
| the technology used to deliver this course did *not hinder* my learning | 7 | 6 | 86 % | 1 | 14 % | 0 | 0 % | 0 | 0 % |
| the technology used to deliver this course did *enhance* my learning | 5 | 4 | 80 % | 0 | 0 % | 0 | 0 % | 1 | 20 % |




## Please provide comments about technology, delivery, experience

| Comments |
|---|
| We didn't have anyone off campus. I think it would be extremely difficult to take this course over AMS. |
| NA |
| did not use AMS |
| Out of all the courses I have taken, the website for this class was the best. All necessary resources are available there, and it was constantly updated. |
| AMS wasn't really used for the class, there were no off campus students. |
| There ended up being no off campus students. |

## Instructor experience...




| Statistics | Value |
|---|---|
| Response Count | 11 |
| Mean | 3.9 |
| Median | 4.0 |

End of Report