

Midterm Evaluations

Plan for second half

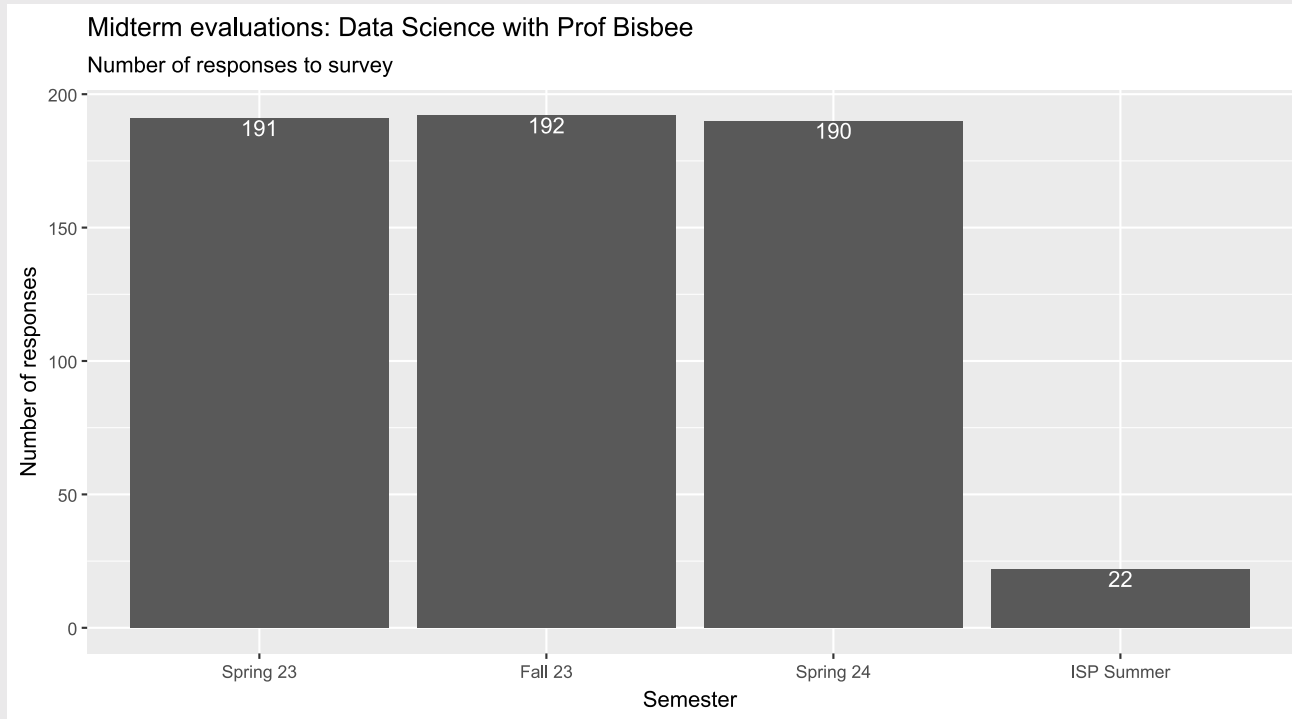
Prof. Bisbee

Vanderbilt University

Slides Updated: 2024-07-12

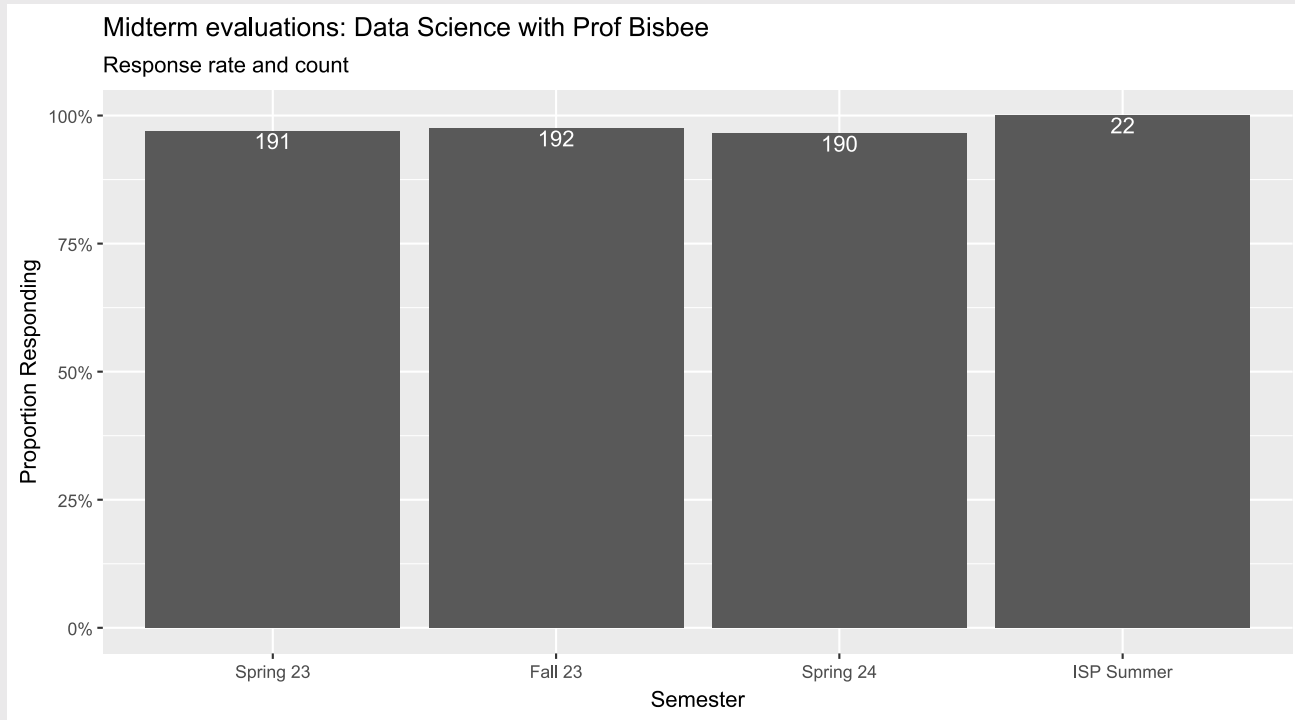
Midterm evaluations

- Started asking these my second semester teaching (spring 2023)
- Normally, this class is 200 students and spread out over a semester
- Step 1? **Look** at the data

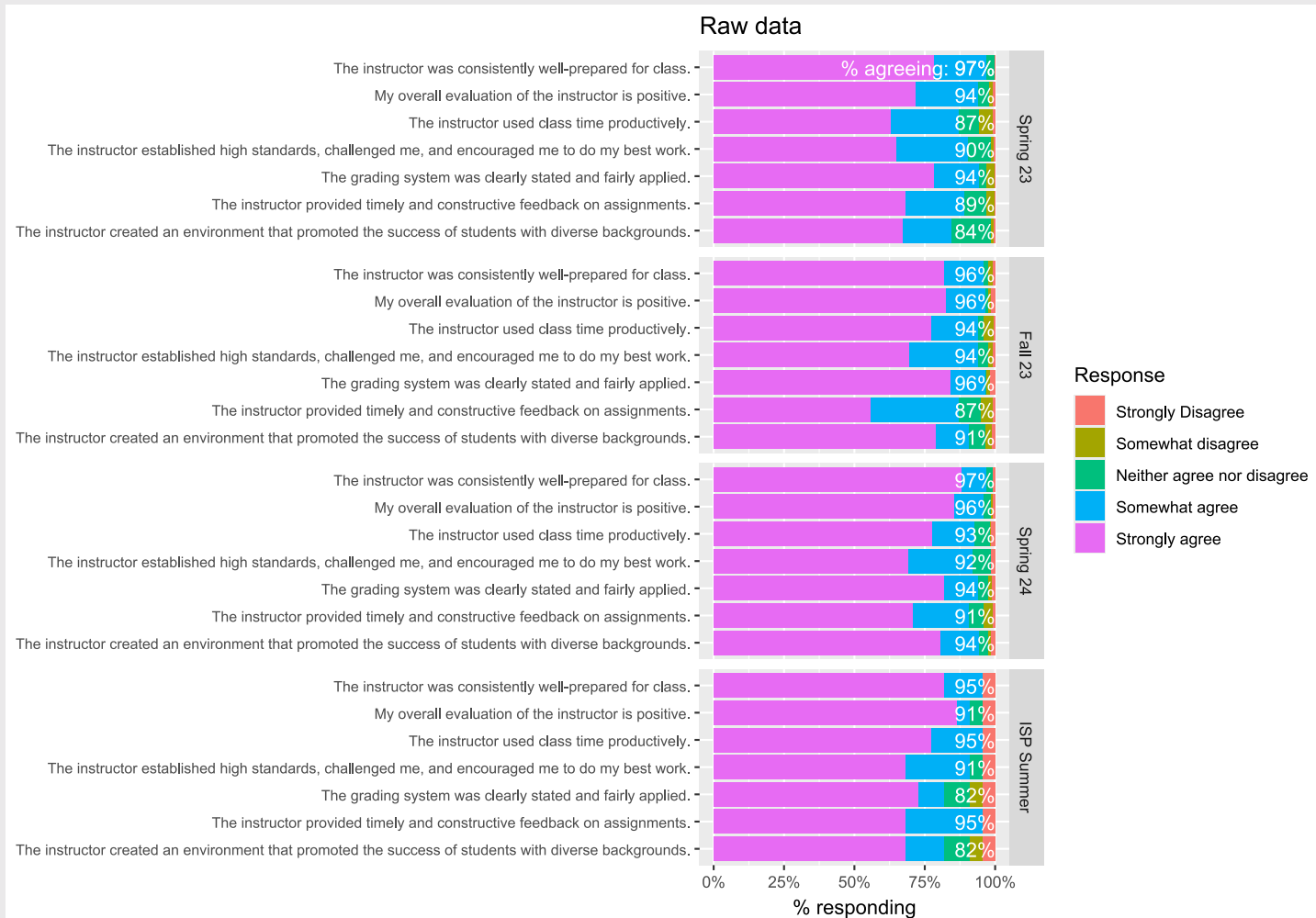


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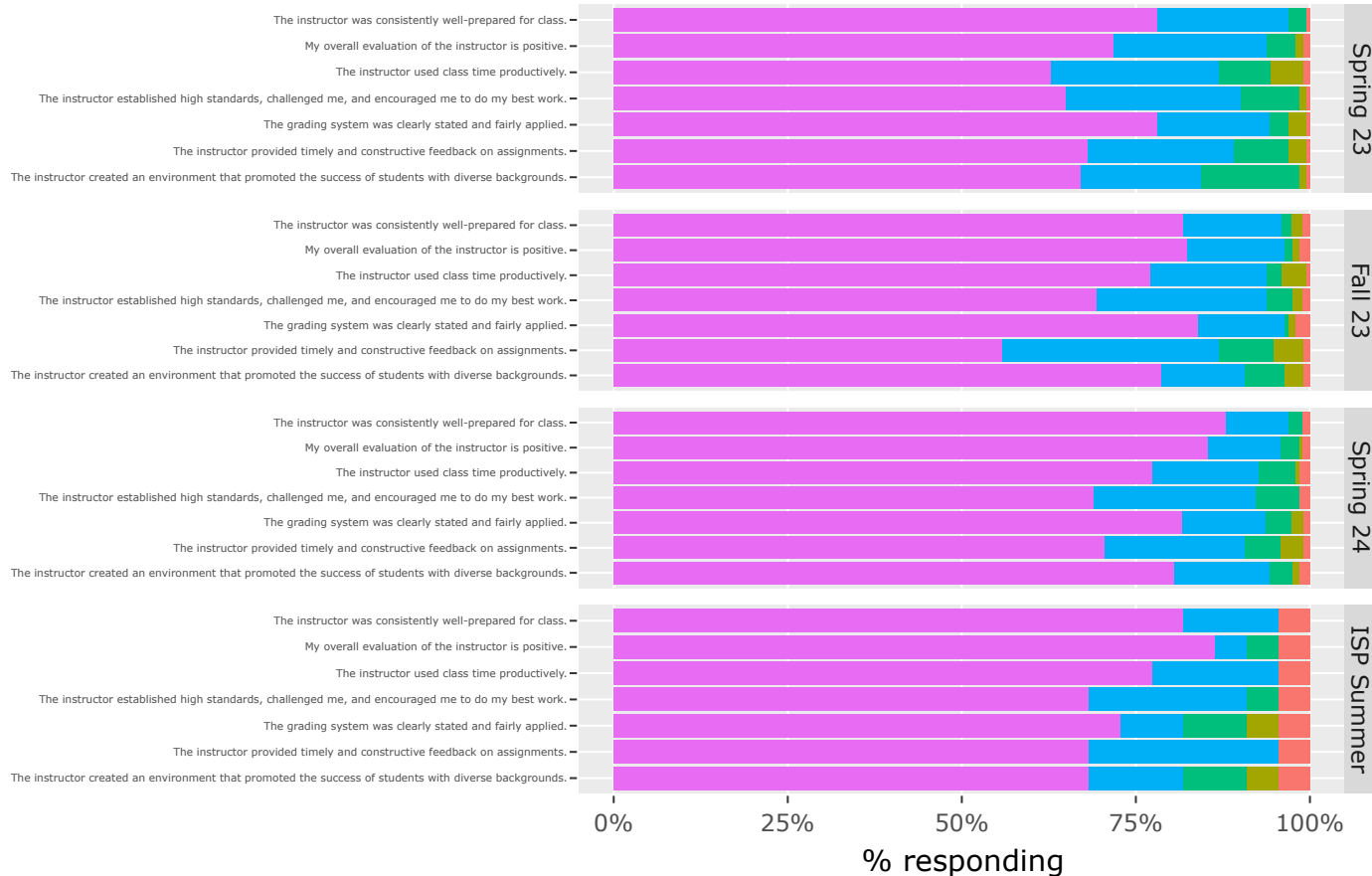


How am I doing?

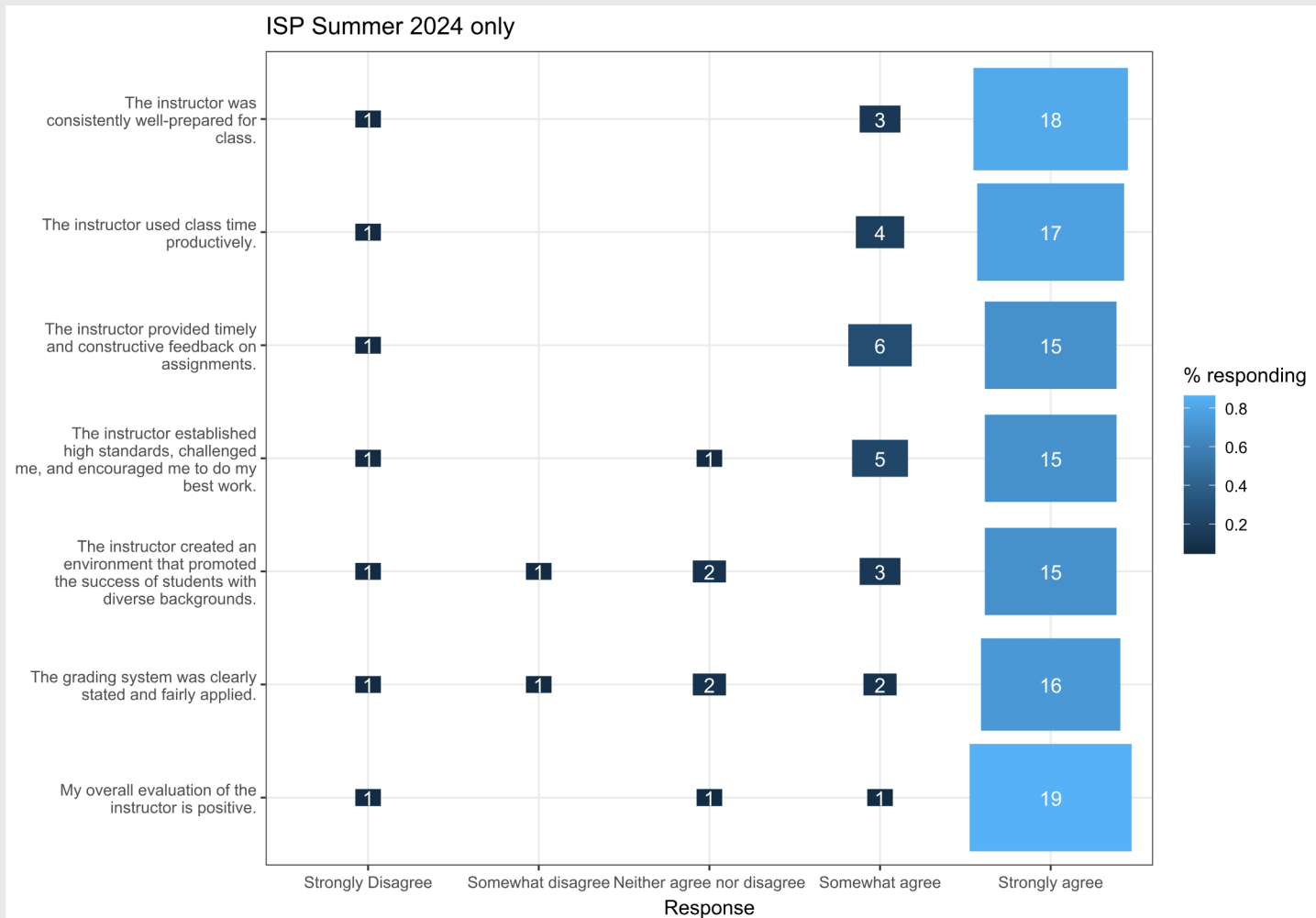


How am I doing?

Raw data



How am I doing?



Digging deeper

- Someone gave "strongly disagree" for every question

```
toanal %>%  
  filter(semester == 'ISP Summer',  
         grepl('Q4_',col)) %>%  
  filter(response == 'Strongly Disagree') %>%  
  count(ResponseId)
```

```
## # A tibble: 1 × 2  
##   ResponseId      n  
##   <chr>      <int>  
## 1 R_4ReL8a12IsUneph    7
```

Digging deeper

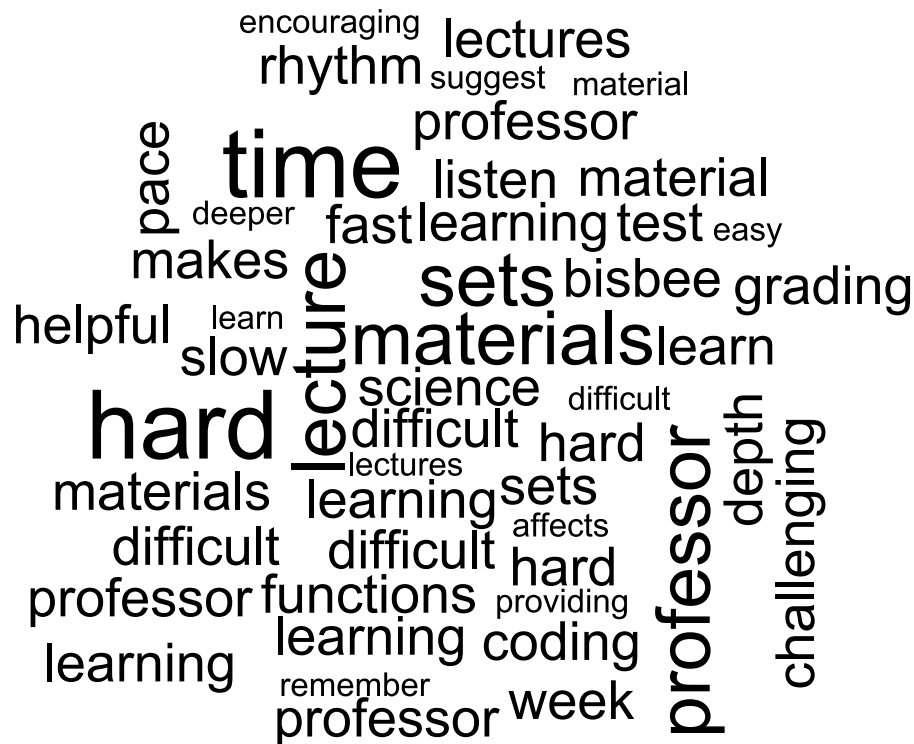
- Someone gave "strongly disagree" for every question

```
toanal %>%  
  filter(ResponseId == "R_4ReL8a12IsUneph") %>%  
  filter(grepl('Q(7|8|9)', col)) %>%  
  select(response)
```

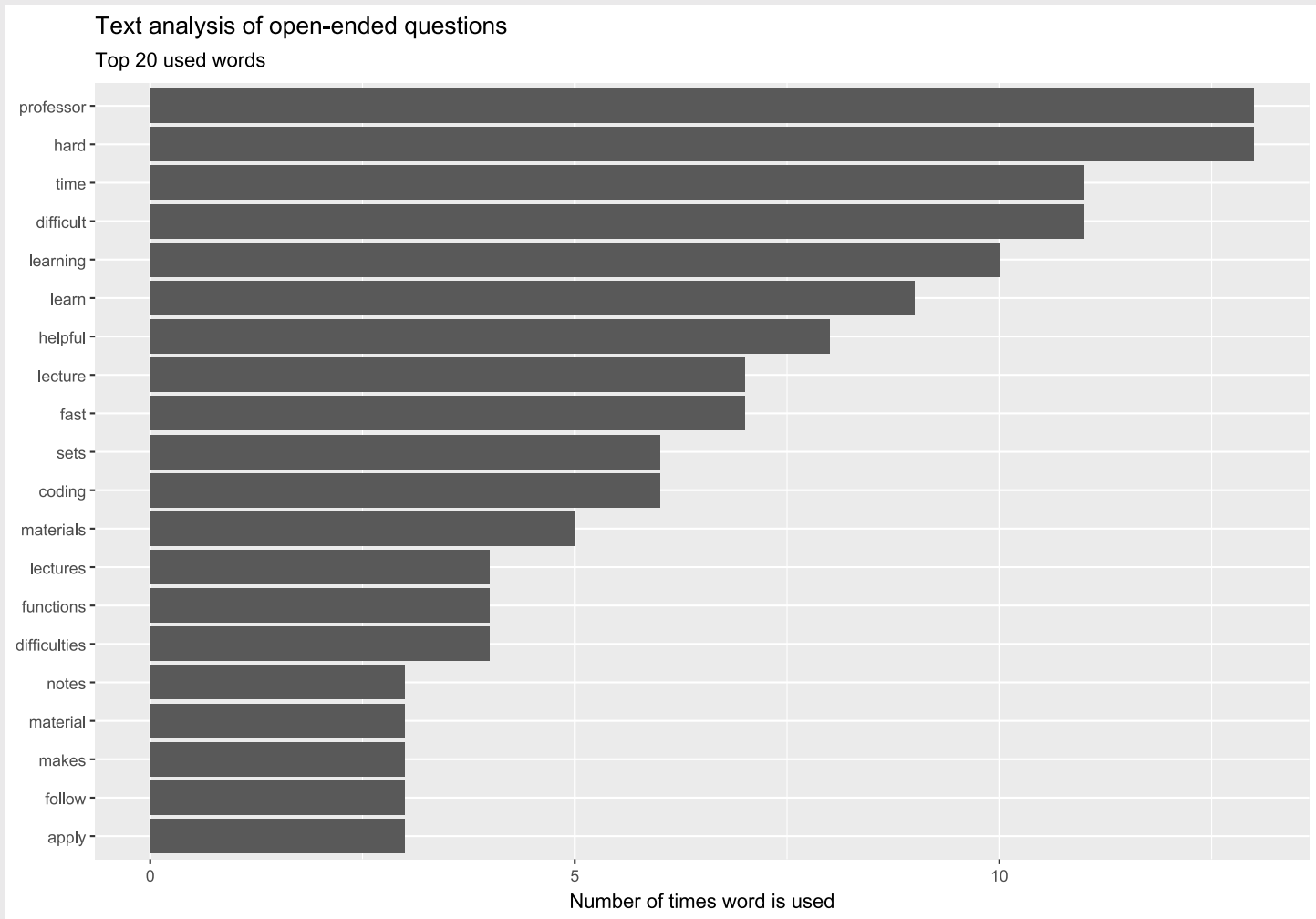
```
## # A tibble: 3 × 1  
##   response  
##   <chr>  
## 1 "I really like my teacher. His lectures are very passiona...  
## 2 "The teacher's lecture rhythm is very good, very enthusia...  
## 3 "no"
```


Text analysis

- Word clouds (I hate these things)



Text analysis

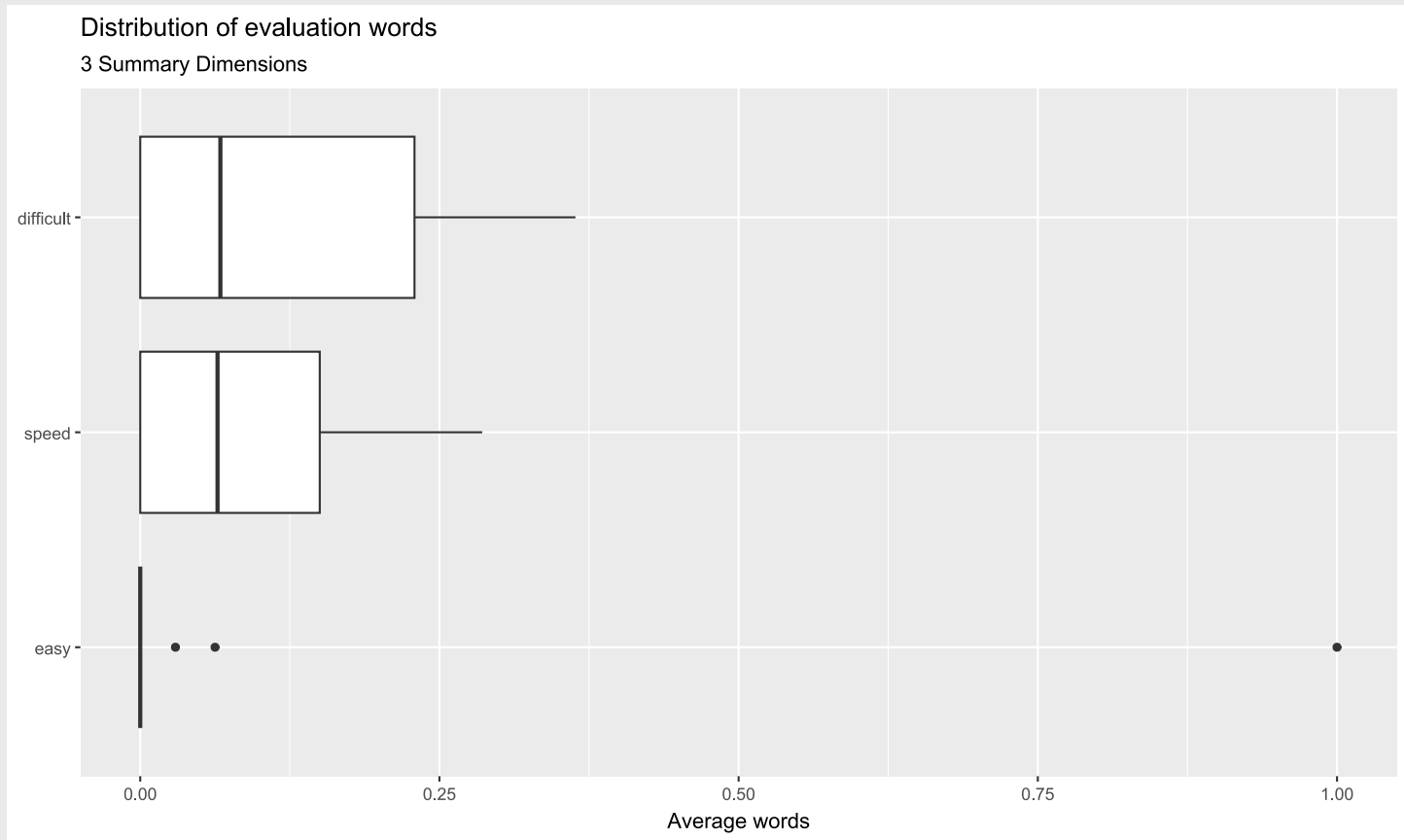


Topic Modeling

```
## INFO [17:09:58.316] early stopping at 125 iteration  
## INFO [17:09:58.343] early stopping at 100 iteration
```

Summary

- Overall, what did the open-ended questions reveal?



Summary: **DIFFICULT**

```
## [1] "The class is hard, but that's just because it's inherently hard to learn the material in this class in such a short amount of time. It is not the class' fault."
```

```
## [1] "Professor Bisbee is an effective instructor and always answers problems with helpful and timely advice. The material itself is very difficult, however, and regardless of how much support I receive, it is difficult to comprehend."
```

```
## [1] "There's not really anything that could be improved about this course. It's hard, and it will always be hard. But Professor Bisbee is doing all he can to get us through it."
```

```
## [1] "It is my first time using R, so it is a little hard for me but the course itself is fun. I really like the class but the concept itself is really hard for me, so I look forward to challenge myself."
```

```
## [1] "Very challenging but it is exciting to learn."
```

Summary: **DIFFICULT**

```
## [1] "pretty hard but very informative"
```

```
## [1] "the content is difficult for me."
```

```
## [1] "the teacher's notes is helpful but when I do the question by  
myself, I feel confused and difficult."
```

```
## [1] "It extremely hard. The problem sets are very difficult. It  
would be good if we could at least start them together."
```

```
## [1] "a) class b) problem sets are quite hard because your code  
could go wrong and you don't know if you're going down the right path  
or not."
```

```
## [1] "difficult. I think I'm slow or professor might be going a bit  
too fast."
```

Summary: **SPEED**

```
## [1] "It is (very) fast paced and demanding yet rewarding as well."
```

```
## [1] "a) actually taking some time to attempt writing the code by  
ourselves after discussing the objectives b) professor often types  
too fast that I miss some lines and get terrified"
```

```
## [1] "a) recording video and lecture notes b) my typing speed is  
too slow to follow professor's pace"
```

```
## [1] "a) Professor is very helpful b) but the professor type too  
fast"
```

```
## [1] "I am taking a lot from the class and learning helpful skills  
for my future studies. However, I feel like we are rushing through a  
lot of the materials in class. I hope we can go a bit more slowly and  
be able to do more practices to apply what we learn into real  
questions/problems."
```

```
## [1] "need more time to type the code before looking up the graph  
together"
```

Summary: **SPEED**

```
## [1] "help with problem sets and maybe slowing down the lectures.  
can't follow your fast coding"
```

```
## [1] "I would say there's a lot things helping me to learn. As for  
the difficulties, sometimes professors' coding pace are a lot more  
faster than mine, so I find it hard to keep the same pace when coding  
new functions or chunks."
```

```
## [1] "too many new function in one class"
```

```
## [1] "Maybe a few more time for me to copy down the codes"
```

```
## [1] "Professor can you go a bit slower maybe?"
```


Response

- Plan: reduce the pace, stay on code longer, explain better
- Cost: might not cover everything in the syllabus

Summary: **EASY**

```
## [1] "For students who wish to delve deeper after the end of the course, it would be helpful if the professor could provide general guidelines for studying data science or suggest additional materials/resources related to R."
```

```
## [1] "Expanding more in-depth in each research question other than multivariate and confidence (maybe do regression, decision trees, etc.)"
```

```
## [1] "Active interections help me learn. Nothing's hard for me yet."
```

```
## [1] "The class is little easy"
```

```
## [1] "I'm totally good"
```

```
## [1] "no problem"
```

Summary: **EASY**

- Plan: ???
- The teacher's paradox! Aim for the center to minimize dissatisfaction!
- 73% of the respondents talked about the speed, 68% talked about the difficulty, 18% talked about the ease

```
## # A tibble: 3 × 3
##   dimension  proportion nResp
##   <chr>      <dbl> <int>
## 1 speed      0.727    16
## 2 difficulty 0.682    15
## 3 easy       0.182     4
```

