This is CS 50.

Harvard College's Introduction to Computer Science I

COMPUTER SCIENCE 50

WIPTE'09

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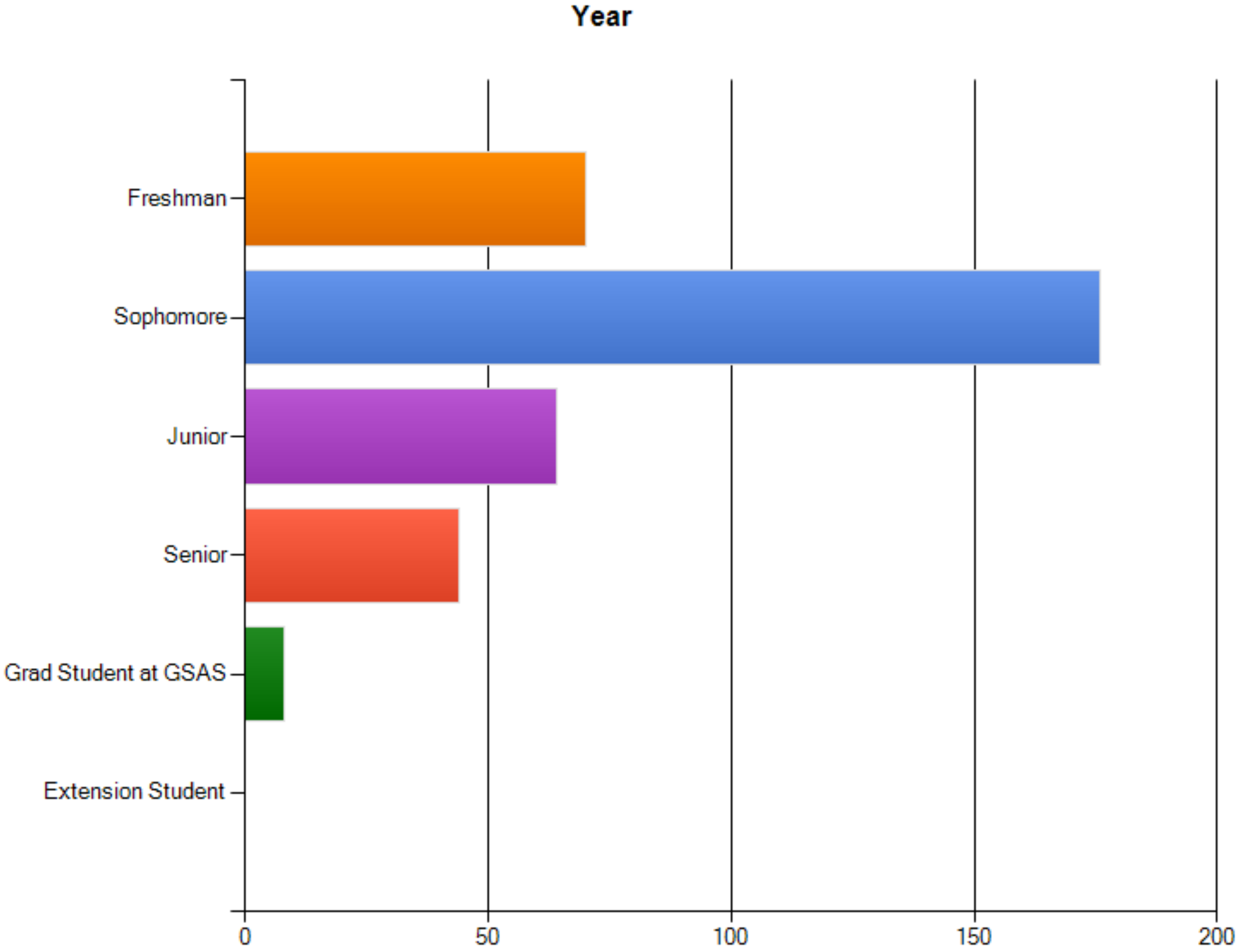
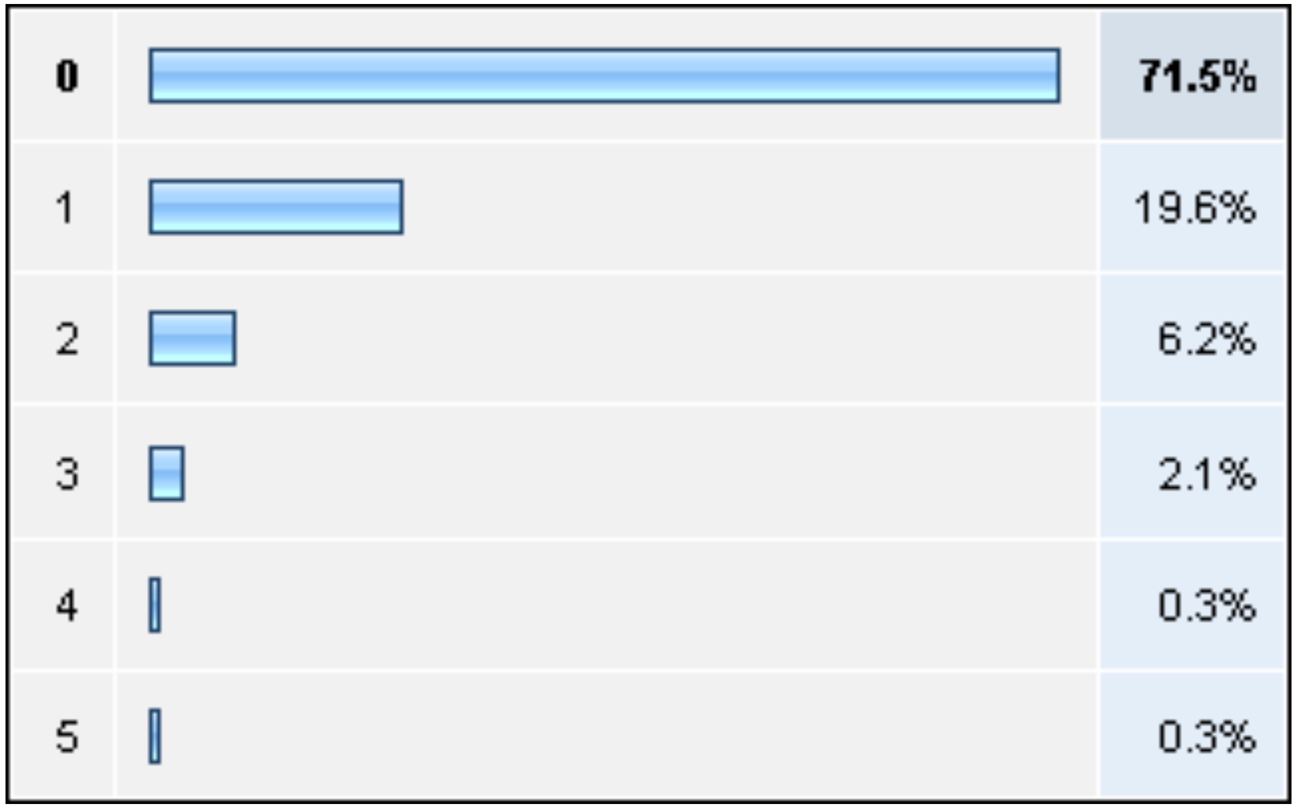
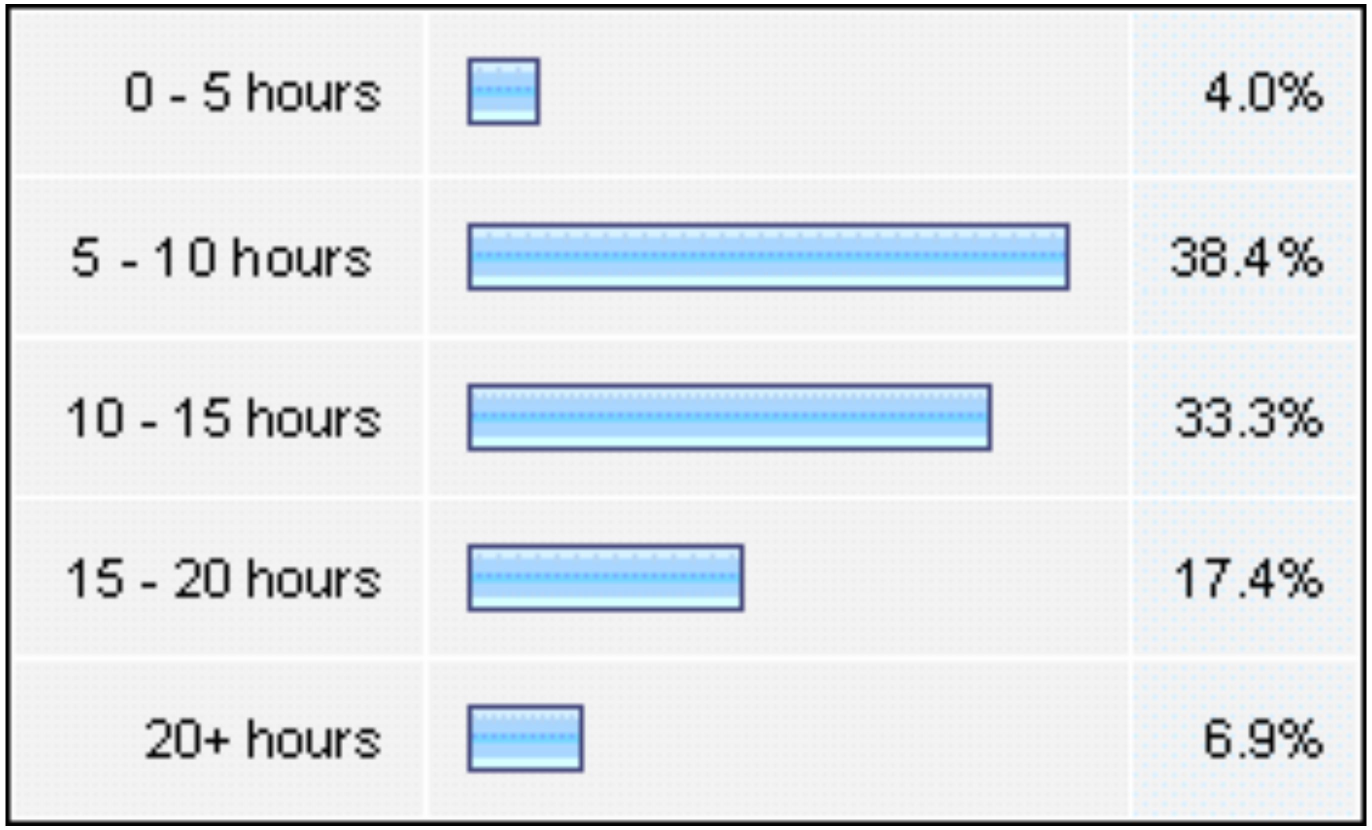

Year
Freshman
Sophomore
Junior
Senior
Grad Student at GSAS
Extension Student
0
50
100
150
200

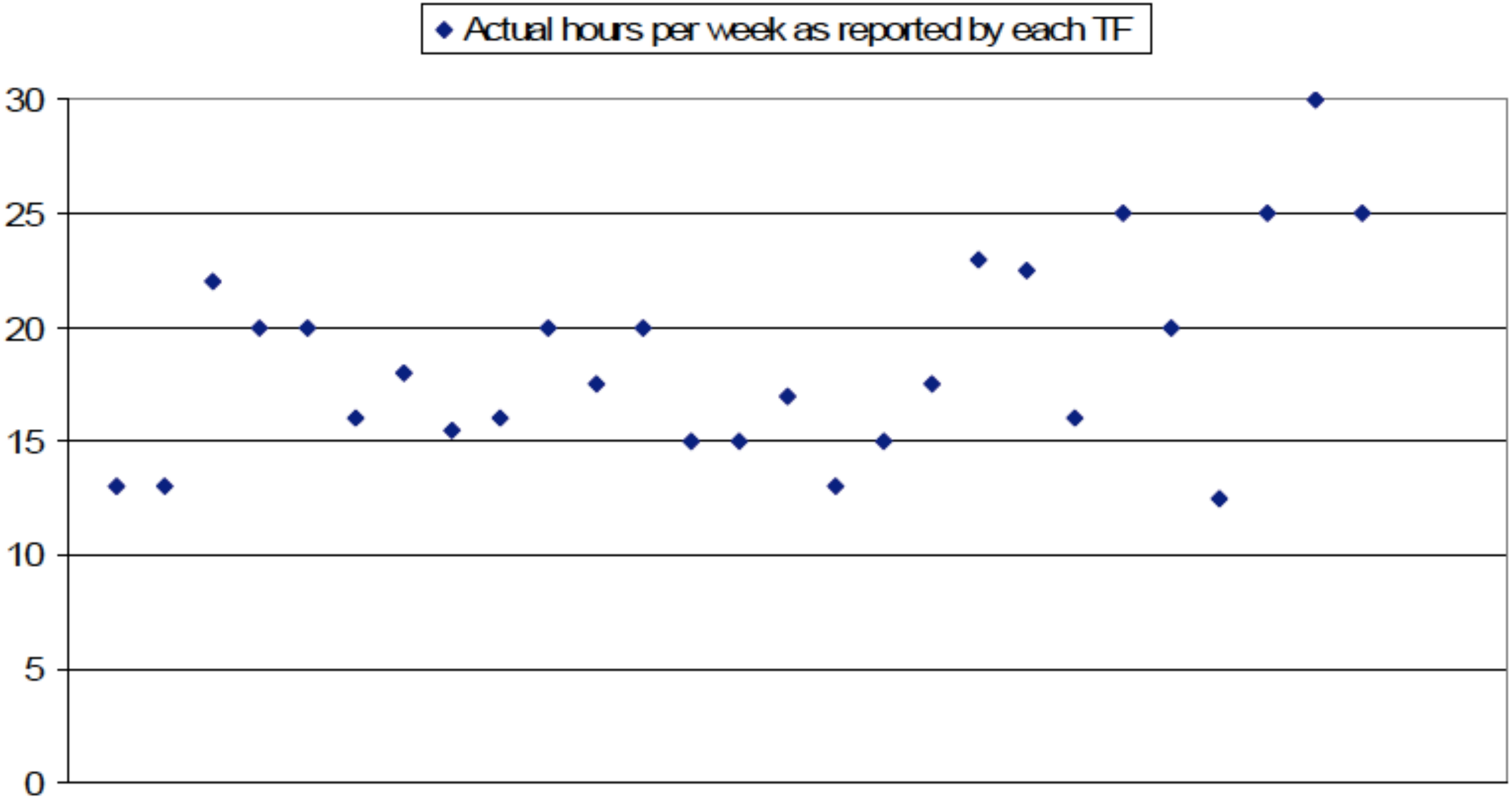
Prior Coursework in CS



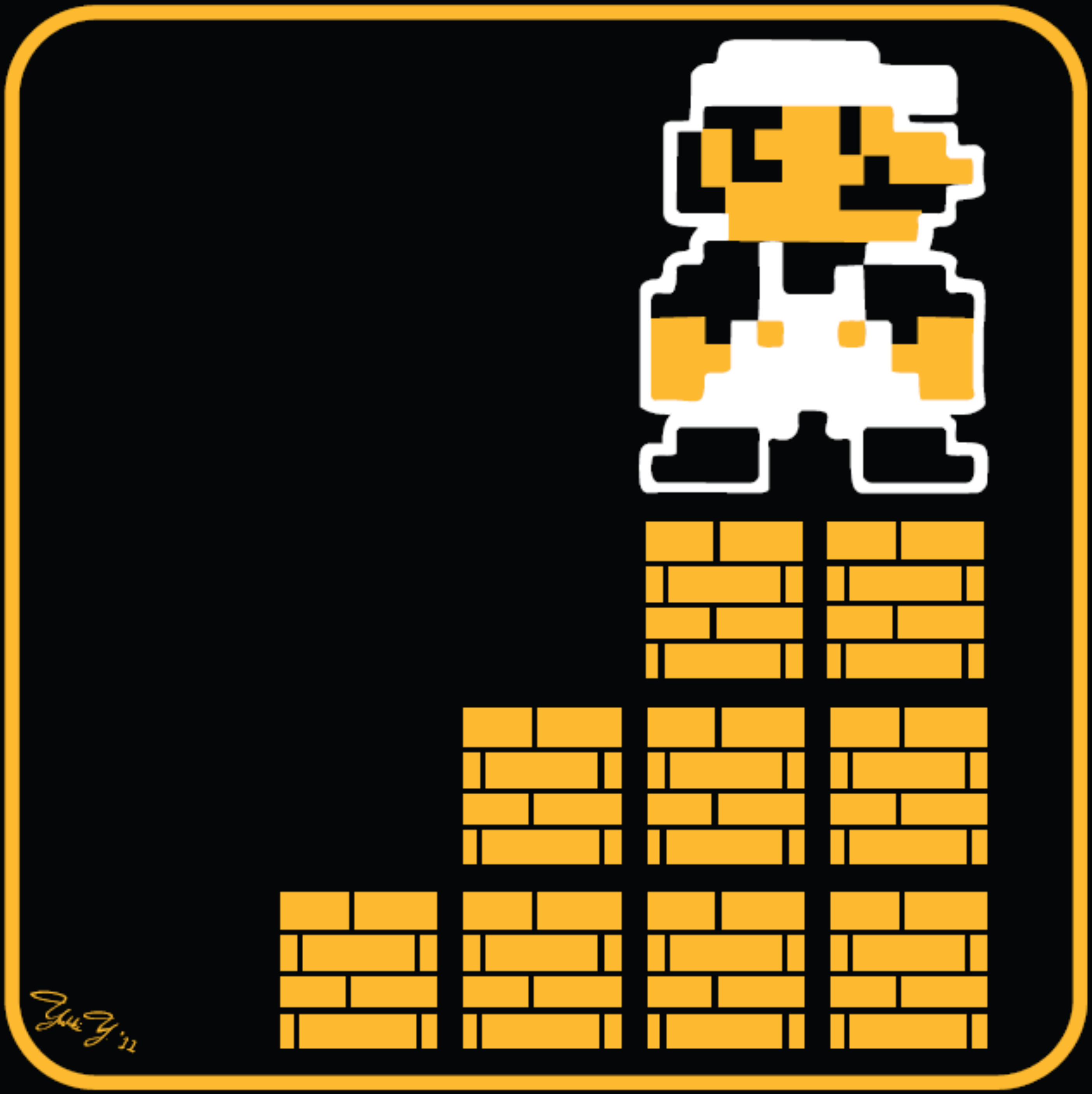
Workload for Students



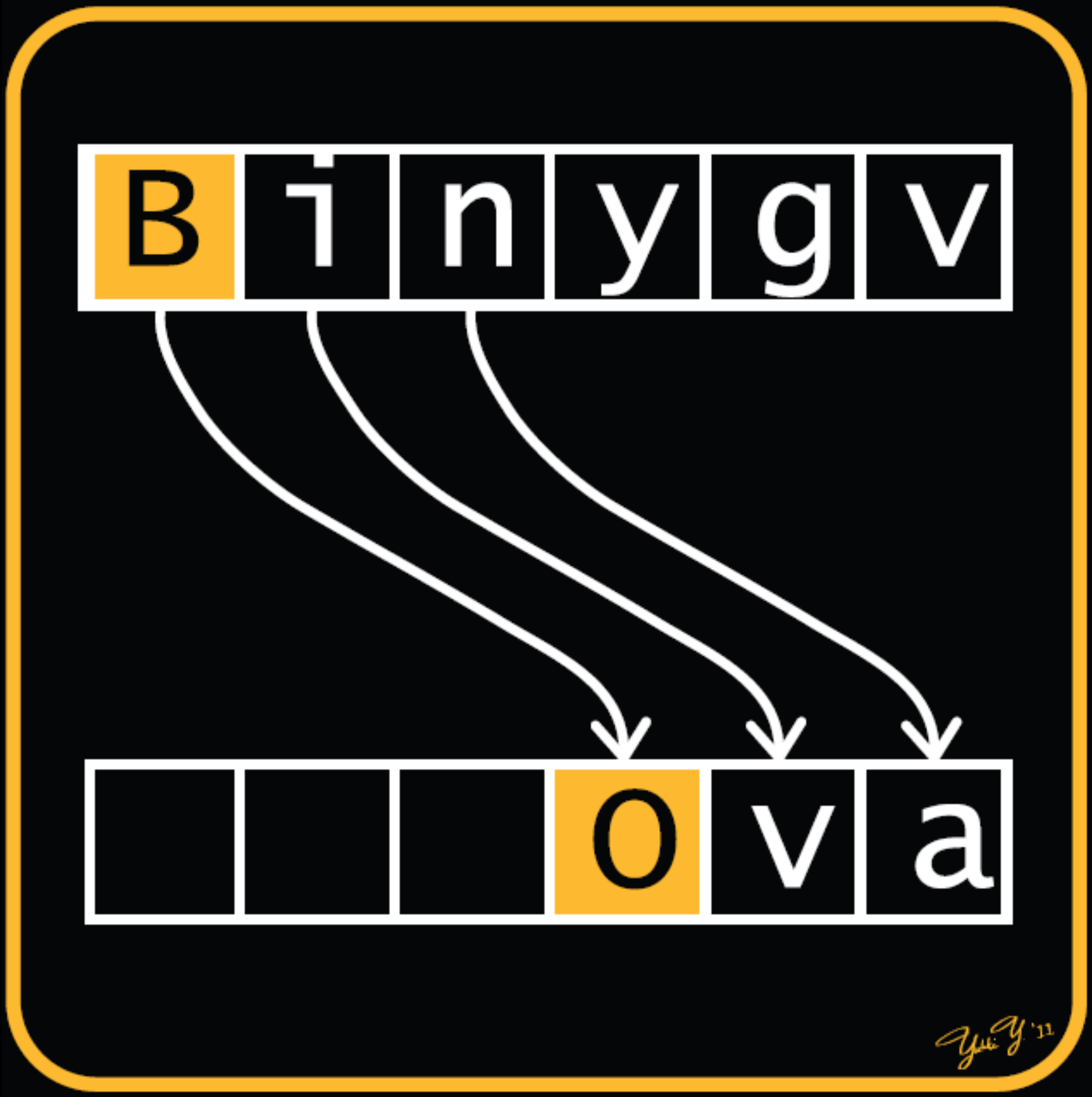
Workload for TFs



0: Scratch



1:C



2: Crypto

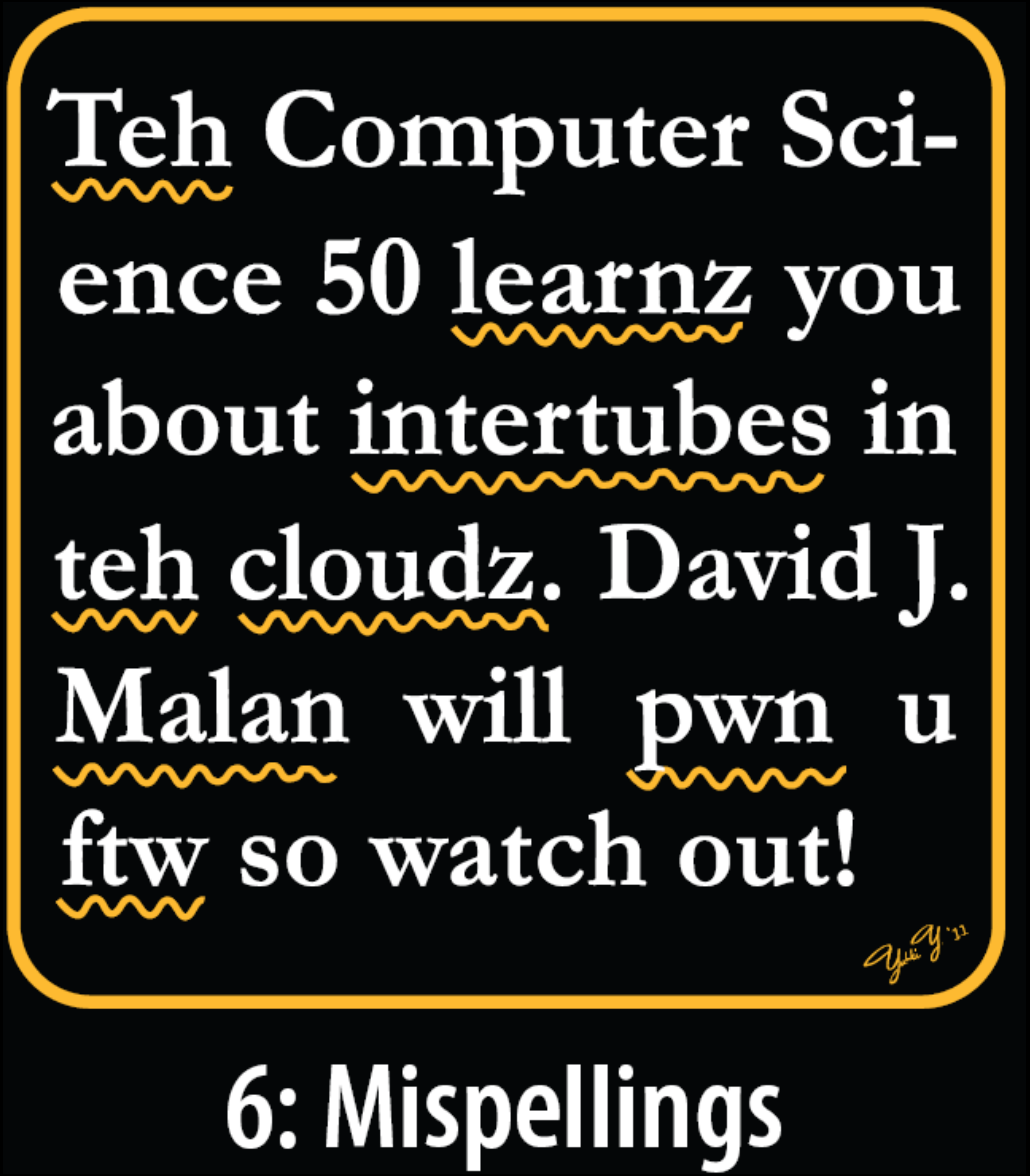
3: Game of Fifteen

数独

8			4		6			7
						4		
	1					6	5	
5		9		3		7	8	
				7				
	4	8		2		1		3
	5	2					9	
		1						
3			9		2			5

4: Sudoku

5: Forensics



Teh Computer Science 50 learnz you about intertubes in teh cloudz. David J. Malan will pwn u ftw so watch out!

Yuki Y '11

6: Mispellings

7: C$50 Finance

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8: Mashup

Source Code

```c
#include <stdio.h>

int
main(int argc, char *argv[])
{
    printf("hello, world\n");
}
```

Grading Axes

- Correctness
- Design
- Style

Grading Scale

- Poor (1)
- Fair (2)
- Good (3)
- Better (4)
- Best (5)

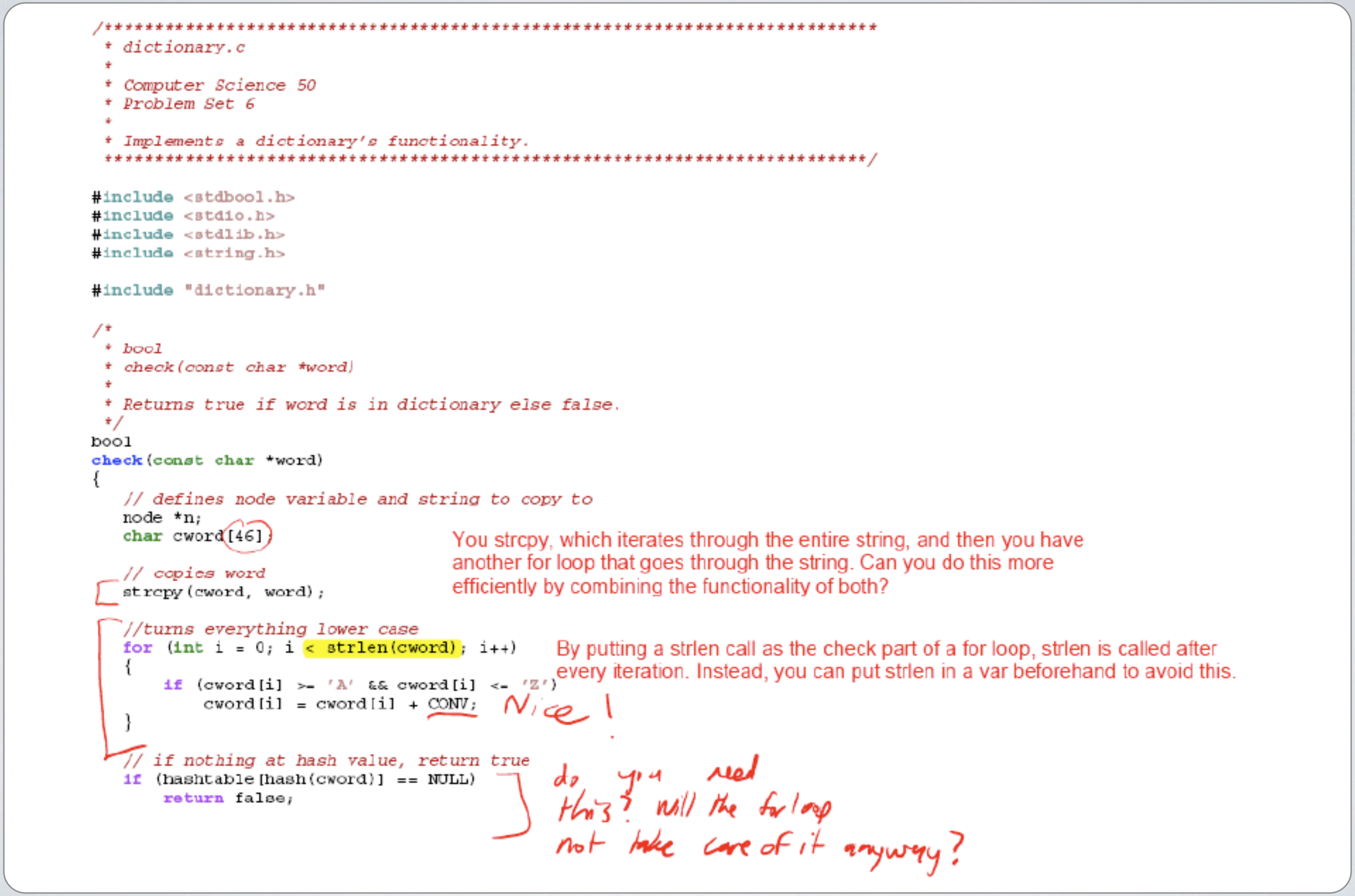
Tablets Considered

- Fujitsu LifeBook T2010
- Fujitsu LifeBook T4220
- Toshiba M400 Series
- Toshiba M700 Series
- Toshiba R400 Series
- HP Pavillion tx2000z Series
- Lenovo ThinkPad X Series
- **Dell Latitude XT**

Tools Used

- Acrobat Pro
  - http://www.adobe.com/products/acrobatpro/
- BlueBeam PDF Revu
  - http://www.bluebeam.com/web07/us/products/revu/standard/
- ZoomIt
  - http://technet.microsoft.com/en-us/sysinternals/bb897434.aspx

A Graded PDF



```
/****************************************************************************
 * dictionary.c
 *
 * Computer Science 50
 * Problem Set 6
 *
 * Implements a dictionary's functionality.
 ***************************************************************************/

#include <stdbool.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

#include "dictionary.h"

/*
 * bool
 * check(const char *word)
 *
 * Returns true if word is in dictionary else false.
 */
bool
check(const char *word)
{
    // defines node variable and string to copy to
    node *n;
    char cword[46];

    // copies word
    strcpy(cword, word);
```

You strcpy, which iterates through the entire string, and then you have another for loop that goes through the string. Can you do this more efficiently by combining the functionality of both?

```
    //turns everything lower case
    for (int i = 0; i < strlen(cword); i++)
    {
        if (cword[i] >= 'A' && cword[i] <= 'Z')
            cword[i] = cword[i] + CONV;
    }
```

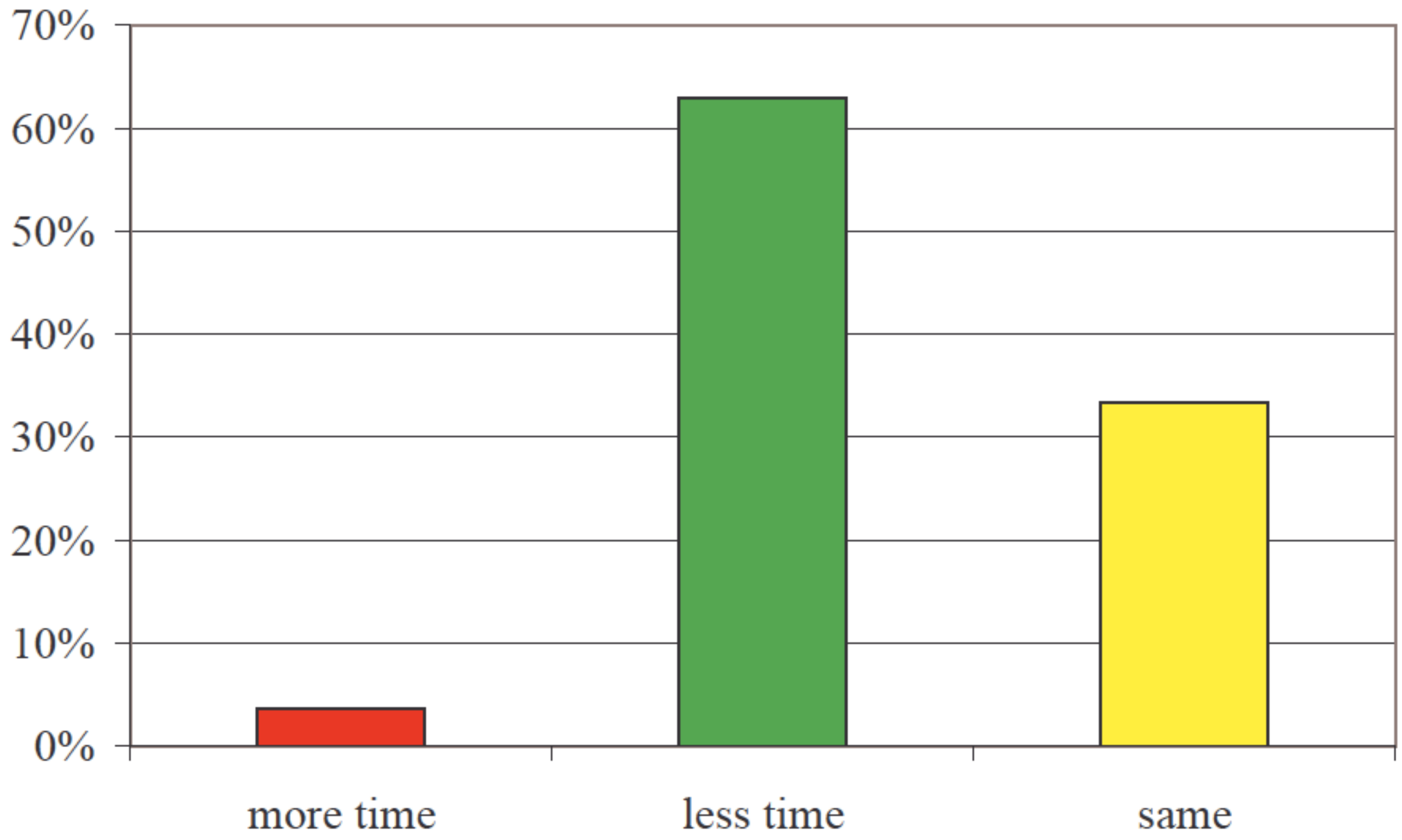
By putting a strlen call as the check part of a for loop, strlen is called after every iteration. Instead, you can put strlen in a var beforehand to avoid this.

Nice!

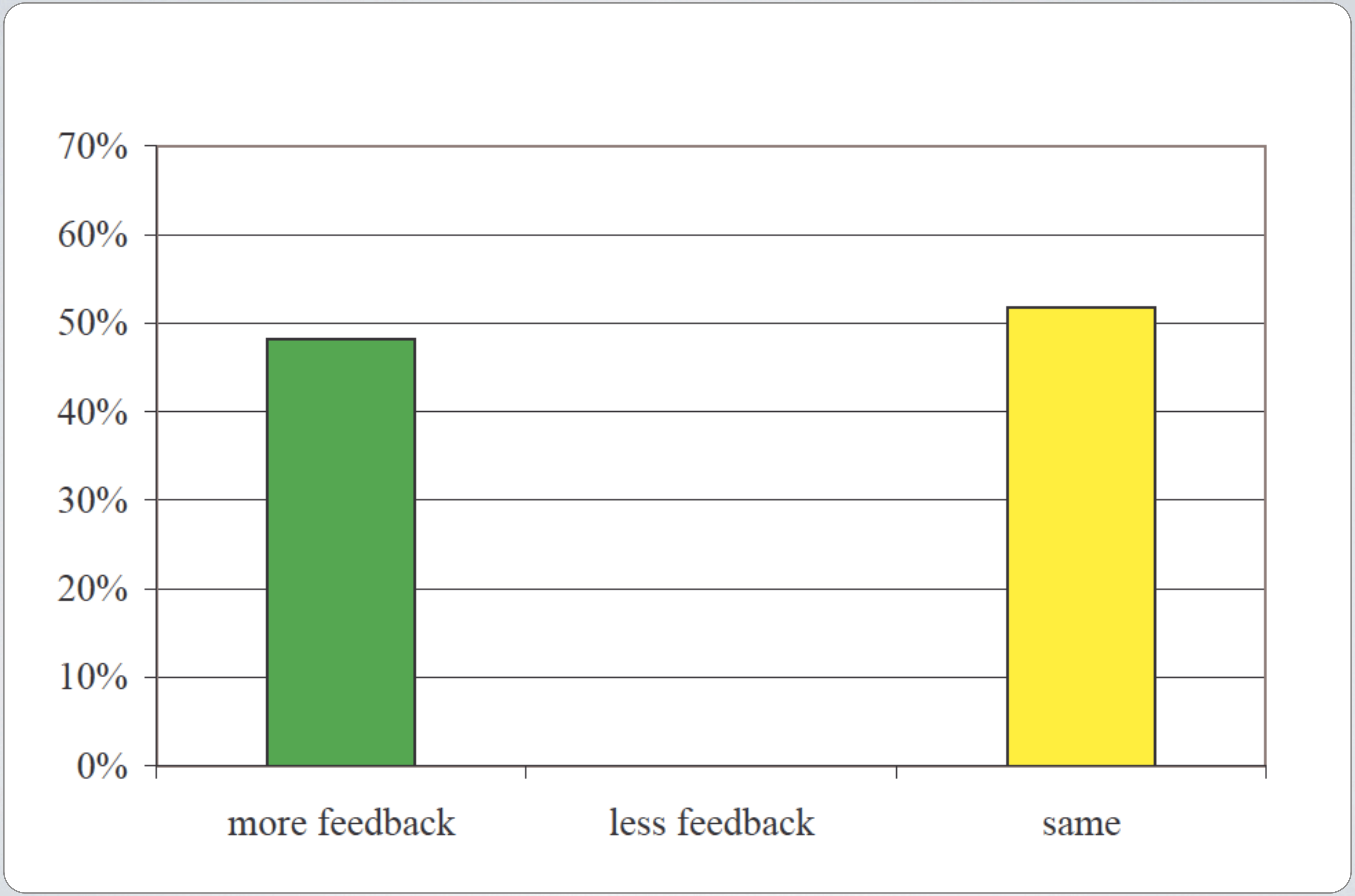
```
    // if nothing at hash value, return true
    if (hashtable[hash(cword)] == NULL)
        return false;
```

do you need this? will the for loop not take care of it anyway?

Most TFs spent less time grading



Almost half provided more feedback



Summary

- Most TFs spent less time grading.
- Many TFs provided more feedback.
- Enhanced demos in lectures and sections.
- Tablets absolutely worthwhile pedagogically, but still too expensive.

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