

Edit This, Please: A Minimal Book Example

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Prerequisites

This is a *sample* book written in **Markdown**. You can use anything that Pandoc's Markdown supports, e.g., a math equation $a^2 + b^2 = c^2$.

The **bookdown** package can be installed from CRAN or Github:

```
install.packages("bookdown")  
# or the development version  
# devtools::install_github("rstudio/bookdown")
```

Remember each Rmd file contains one and only one chapter, and a chapter is defined by the first-level heading #.

To compile this example to PDF, you need XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): <https://yihui.name/tinytex/>.

Chapter 1

Introduction

You can label chapter and section titles using `{#label}` after them, e.g., we can reference Chapter 1. If you do not manually label them, there will be automatic labels anyway, e.g., Chapter 3.

Figures and tables with captions will be placed in `figure` and `table` environments, respectively.

```
par(mar = c(4, 4, .1, .1))  
plot(pressure, type = 'b', pch = 19)
```

Reference a figure by its code chunk label with the `fig:` prefix, e.g., see Figure 1.1. Similarly, you can reference tables generated from `knitr::kable()`, e.g., see Table 1.1.

```
knitr::kable(  
  head(iris, 20), caption = 'Here is a nice table!',  
  booktabs = TRUE  
)
```

You can write citations, too. For example, we are using the **bookdown** package (Xie, 2018) in this sample book, which was built on top of R Markdown and **knitr** (Xie, 2015).



Figure 1.1: Here is a nice figure!

Table 1.1: Here is a nice table!

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5.0	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3.0	1.4	0.1	setosa
4.3	3.0	1.1	0.1	setosa
5.8	4.0	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa
5.1	3.8	1.5	0.3	setosa

Chapter 2

Literature

Here is a review of existing methods, directly quoted from (Lewis, 1903). Each line from the pdf is a line here; maybe this makes editing easier? harder?

I REGARD the teaching of English literature and the teaching of spelling, grammar, and rhetoric as two different professions. It is in many respects unfortunate that both should have to be practiced by a single teacher, or a single department, for the best teacher of literature may be the worst teacher of spelling, grammar, and rhetoric; but, as our curriculums are at present ordained, we have to face the situation as best we can. Let us frankly recognize, however, that we are dealing with two widely different sets of subjects; that the methods that succeed in the teaching of spelling and grammar may fail utterly with literature; and that experience gained in one branch cannot be an infallible guide in the other. My own experience has been almost wholly in the teaching of literature, and methods of elementary instruction in that branch will be the subject of this paper. I wish, however, by way of preface, and in order to avoid a possible misunderstanding, to state briefly an opinion concerning both branches. There is much complaint against the manner in which kindergarten ideas have invaded secondary schools and colleges. I hear it said that we do not discipline our scholars enough; and that that is why they are growing up illiterate. Now, my opinion is that, in so far as this complaint relates to our teaching of spelling, grammar, and rhetoric, it is not without foundation; I believe that in those subjects some of us do trust too much to Kindergarten methods-to literary methods; and I am glad to see a revival of the good old-fashioned discipline. On the other hand, in the teaching of English literature I think the idea of discipline is already carried rather too far, and that our schools and colleges would do better if they employed less of what is commonly called discipline than they actually do. In this paper I propose to defend what to many will seem altogether too lax a method; but I wish it distinctly understood that I am referring only to the teaching of literature, and that, if I were discussing spelling, grammar, or rhetoric, I should speak very differently. The first problem that caused me much trouble in my own experience was as to the degree of minute thoroughness desirable in reading. The average student has a very small vocabulary, and, of course, we want him to extend it. Suppose you are teaching *Macbeth*. Your first lesson brings you to Paddock, Graymalkin, kerns, gallowglasses, Bellona's bridegroom, and a score or more of other expressions that your student may not know unless he looks them up; and, of course, he will not look them up unless you make him-that is, unless you devote much of your time to quizzing the class upon particular words, and insist upon having everything explained. Of course, the objection to such a plan is the dryness of the toil involved. Our average student finds it a positively repellent task, and our object is to make literature attract him. On the other hand, if you do not make him look up the words he does not know, will he know Shakespeare at all? How much of the exquisite beauty of *Romeo*, how much of the sublimity of *Lear*, is wholly lost upon the student who has not studied Shakespeare's language. For every difficulty that you pass over in silence, you will inevitably feel a sting of conscience, and toward every student with whom you practice the laxer method you will have moments of feeling yourself a criminal. Nevertheless, after some years of varied experiments and after much reflection, I have long since abandoned the stricter method, and for the last three or four years I have been adding to the burdens of my conscience about three hundred crimes per annum. It is true that I feel, after teaching *Hamlet*, or *Lear*, or *Othello*,

that none of my students really know Shakespeare; but, then, who does ? They cannot know him except in part, and the question for the teacher to decide is: What part? I have satisfied myself that, so far as my own younger students are concerned, they will know less about him if they are forced to read him in what I should call a thorough manner than if they are let off more easily. In the former case, assuredly not like him; and the knowledge of Shakespeare possessed by anybody who does not like him must of necessity be of small value. This seems but a superficial argument; but there is a deeper principle underlying it. Let us look at the question in another way. Let us suppose that our chief interest is merely to increase the student's vocabulary. Even so, I think it might be plausibly urged that the best way to accomplish this is not by making him study words. He will enrich his vocabulary more by wide reading than by thorough reading. Consider how we ourselves have learned the language. I have no idea how large my effective vocabulary is, but I am certain that not more than 1 per cent. of it consists of words that I have looked up. And, moreover, in a matter of this kind, it will not do to count merely the numbers of words that we know. The quality of our knowledge is more important to us than the quantity. From dictionaries and text-books I have learned such words as "sclerosis," "kilogram," "epistemological," "isogeotheism," "dicotyledinous." A friend of mine has recently acquired the word "radiomicrometer," and he has three times in the last fortnight introduced it casually into conversation about the weather, with excellent effect. Such words as these are showy things to wear on the outside, but the part of our vocabulary that furnishes the really vital garment for our thought is the integument that grows by nature. Compare with the words that I have just listed such words as "father," "mother." They afford an extreme example, for they suggest ideas that are more vitally dear to us than all the radiomicrometers in the world; but in a lower degree I think all the words that we have unconsciously absorbed, either from the speech of others or from our own discursive reading, are likewise more intimately ours than those we have exhumed by a deliberate effort from dictionaries. I myself, therefore, have discontinued that method of teaching English, because it seemed to me a misguided attempt to find a short-cut to culture.

Chapter 3

Methods

We describe our methods in this chapter, quoted directly from (Rowling, 2000), text copied from this site.

Harry and Ron had barely finished their third helpings of Christmas pudding when Hermione ushered them out of the hall to finalize their plans for the evening. “We still need a bit of the people you’re changing into,” said Hermione matter-of-factly, as though she were sending them to the supermarket for laundry detergent. “And obviously, it’ll be best if you can get something of Crabbe’s and Goyle’s; they’re Malfoys best friends, he’ll tell them anything. And we also need to make sure the real Crabbe and Goyle can’t burst in on us while we’re interrogating him. ”I’ve got it all worked out,” she went on smoothly, ignoring Harry’s and Ron’s stupefied faces. She held up two plump chocolate cakes. “I’ve filled these with a simple Sleeping Draught. All you have to do is make sure Crabbe and Goyle find them. You know how greedy they are, they’re bound to eat them. Once they’re asleep, pull out a few of their hairs and hide them in a broom closet.” Harry and Ron looked incredulously at each other. “Hermione, I don’t think -” “That could go seriously wrong -” But Hermione had a steely glint in her eye not unlike the one Professor McGonagall sometimes had. “The potion will be useless without Crabbe’s and Goyle’s hair,” she said sternly. “You do want to investigate Malfoy, don’t you?” “Oh, all right, all right,” said Harry. “But what about you? Whose hair are you ripping out?”

“I’ve already got mine!” said Hermione brightly, pulling a tiny bottle out of her pocket and showing them the single hair inside it. “Remember Millicent Bulstrode wrestling with me at the Dueling Club? She left this on my robes when she was trying to strangle me! And she’s gone home for Christmas - so I’ll just have to tell the Slytherins I’ve decided to come back.” When Hermione had bustled off to check on the Polyjuice Potion again, Ron turned to Harry with a doom-laden expression. “Have you ever heard of a plan where so many things could go wrong?” But to Harry’s and Ron’s utter amazement, stage one of the operation went just as smoothly as Hermione had said. They lurked in the deserted entrance hall after Christmas tea, waiting for Crabbe and Goyle who had remained alone at the Slytherin table, shoveling down fourth helpings of trifle. Harry had perched the chocolate cakes on the end of the banisters. When they spotted Crabbe and Goyle coming out of the Great Hall, Harry and Ron hid quickly behind a suit of armor next to the front door. “How thick can you get?” Ron whispered ecstatically as Crabbe gleefully pointed out the cakes to Goyle and grabbed them. Grinning stupidly, they stuffed the cakes whole into their large mouths. For a moment, both of them chewed greedily, looks of triumph on their faces. Then, without the smallest change of expression, they both keeled over backward onto the floor. By far the hardest part was hiding them in the closet across the hall. Once they were safely stowed among the buckets and mops, Harry yanked out a couple of the bristles that covered Goyle’s fore head and Ron pulled out several of Crabbe’s hairs. They also stole their shoes, because their own were far too small for Crabbe and Goyle-size feet. Then, still stunned at what they had just done, they sprinted up to Moaning Myrtle’s bathroom. They could hardly see for the thick black smoke issuing from the stall in which Hermione was stirring the cauldron. Pulling their robes up over their faces, Harry and Ron knocked softly on the door. “Hermione?” They heard the scrape of the lock and Hermione emerged, shiny-faced and looking anxious. Behind her they heard the gloop gloop of the bubbling, glutinous potion. Three glass tumblers

stood ready on the toilet seat. “Did you get them?” Hermione asked breathlessly. Harry showed her Goyle’s hair. “Good. And I sneaked these spare robes out of the laundry,” Hermione said, holding up a small sack. “You’ll need bigger sizes once you’re Crabbe and Goyle.” The three of them stared into the cauldron. Close up, the potion looked like thick, dark mud, bubbling sluggishly. “I’m sure I’ve done everything right,” said Hermione, nervously rereading the splotched page of *Moste Potente Potions*. “It looks like the book says it should ... once we’ve drunk it, we’ll have exactly an hour before we change back into ourselves.” “Now what?” Ron whispered. “We separate it into three glasses and add the hairs.” Hermione ladled large dollops of the potion into each of the glasses. Then, her hand trembling, she shook Millicent Bulstrode’s hair out of its bottle into the first glass.

The potion hissed loudly like a boiling kettle and frothed madly. A second later, it had turned a sick sort of yellow. “Urgh - essence of Millicent Bulstrode,” said Ron, eyeing it with loathing. “Bet it tastes disgusting.” “Add yours, then,” said Hermione. Harry dropped Goyle’s hair into the middle glass and Ron put Crabbe’s into the last one. Both glasses hissed and frothed: Goyle’s turned the khaki color of a booger, Crabbe’s a dark, murky brown. “Hang on,” said Harry as Ron and Hermione reached for their glasses. “We’d better not all drink them in here Once we turn into Crabbe and Goyle we won’t fit. And Millicent Bulstrode’s no pixie.” “Good thinking,” said Ron, unlocking the door. “We’ll take separate stalls.” Careful not to spill a drop of his Polyjuice Potion, Harry slipped into the middle stall. “Ready?” he called. “Ready,” came Ron’s and Hermione’s voices. “One - two - three -”

Pinching his nose, Harry drank the potion down in two large gulps. It tasted like overcooked cabbage.

Chapter 4

Applications

Some *significant* applications are demonstrated in this chapter.

4.1 Example one

4.2 Example two

Chapter 5

Final Words

We have finished a nice book.

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