
A review of `learnlatex.org`

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Learn \LaTeX (`learnlatex.org`) is an instructional guide to help new users of \LaTeX become familiar with creating their first documents and to introduce them to robust features that could be lacking or inefficient in popular word processor software. This review will address the following specific questions about the site:

- Is it pedagogically effective?
- Does it provide what a \LaTeX newbie needs to know?
- Does it encourage “best practices” and avoid harmful ones?
- Is it clear about what kinds of materials are supported?

An example screenshot from the site is shown at the end of this review, with the caveat that the site’s graphic design has not yet been developed.

1 Is it pedagogically effective?

At first click, the Learn \LaTeX site is clean and welcoming, a good sign for new users. In Lesson 1, the site gives an overview of what \LaTeX is, how it works, and why it differs from WYSIWYG interfaces. Each of the modules includes options to learn more about the topic or go to the next lesson. The user is invited to follow along with examples by seeing the on-site display, opening in an editor, or by using a web resource such as Overleaf.

To address the question of pedagogical efficacy, though, this site assumes a sufficient inherent motivation from the user to complete each of the exploratory tasks. The methods of presenting information are indeed logically sequential and streamlined, but a user must want to complete tasks if his or her intention is to learn the content. The placement of each illustrative example and links to Overleaf (`overleaf.com`) and \LaTeX Online (`latex.cgi.xyz`) are convenient and facilitate active engagement by the user, which is also pedagogically functional.

Each lesson has at least one exercise for users to try. Once again, a motivated user would do these for the sake of learning. To encourage the fraction of users exploring the Learn \LaTeX site who are less motivated, perhaps a checklist of “Things to try” would draw more strongly upon the strings of human desire for task completion. Another suggestion may be to include things to try that deliberately lead to errors, followed by a quick set of things to notice and consequently correct.

2 Does it provide what a \LaTeX newbie needs to know?

For a user who needs to produce a standard document, Learn \LaTeX provides enough starting points to populate text and try variations. It also provides relevant background and formatting tips that might be specific to a publication style, such as forced vertical or horizontal spacing or paragraph skipping rather than indentation. The site does focus on producing the article class, so a new user who wants to produce slides would need to either find support for that class or make creative decisions within the article class.

Inclusion of the math mode is an important section of this site, and reference to additional resources such as Detexify (detexify.kirelabs.org) are certainly helpful. The robustness of mathematical typesetting is seemingly a primary incentive for a person to use \LaTeX rather than a word processor.

A great bottleneck for new users to \LaTeX is neither an issue about raw difficulty nor inability to use markup functions. The perceived time sink (which is sometimes an actual time sink) needed to troubleshoot problems can be undesirable to a user who might be able to more quickly perform a task using software with which they are familiar. The result is that the potential user does not become any more familiar with \LaTeX , and does not use it for future tasks unless required.

Learn \LaTeX conveniently has a section titled *Dealing with Errors*, in which common errors for the typical user are examined. The supporting exercises to fix the errors illustrated provide an excellent method for recognizing and solving problems.

3 Does it encourage “best practices” and avoid harmful ones?

Learn \LaTeX encourages “best practices” and tips for successful document creation. It provides insight into functional tips to help new users avoid pitfalls that can result in the aforementioned timesinks; for instance, mentioning that “It’s important to finish a paragraph before changing the font size back.” Almost all sections have such a guiding tip to avoid unnecessary troubleshooting down the line.

4 Is it clear about what kinds of materials are supported?

Regarding supported materials, it seems that Learn \LaTeX walks its users through a variety of examples for file types, packages, databases, etc. The relevance of the supported materials naturally depends on the user’s intended end product, but each section in Learn \LaTeX provides clear details for how those are used.

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5 Overall summary

The construction of this document (review) itself is perhaps testament that the Learn \LaTeX site is useful to a new user who simply needs to create and submit a text-only document. A search function within the site could be helpful, though, since there were sections I wanted to be able to jump to quickly. This would eliminate the necessity to “flip through” pages or run web searches for help. Working in tandem with the Overleaf environment provides a convenient way to generate the markup and make tweaks as needed.

The Learn \LaTeX site is usable as a self-paced course for a motivated \LaTeX learner and seems sufficiently effective in its ability to guide a user from introduction to production. It does not yet, however, provide incentive for a non-user to explore it diligently unless the user has a specific need for \LaTeX typesetting, which is a fair shortcoming of most instructional tools across all fields.

The site is currently or soon will be available in Chinese, English, French, German, Marathi, Portuguese, Japanese, and Vietnamese. (Some translations are still in progress.)

At the time of this submission, the website is still being edited and new features implemented. It is my personal hope, for the efforts that are being put into making \LaTeX more accessible, that it will be adopted by a broader audience other than simply “those who must use it”.

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The screenshot shows the 'Examples for further study' section on the LearnLaTeX.org website. It features a language dropdown set to 'en'. Below the title, there is a note: 'This course has given an overview of the core features of LaTeX. LaTeX has vast array of extension packages and is used in many subject areas. We give here some examples, with no explanation here but links to the package documentation at texdoc.net. The examples are taken from the package documentation unless otherwise noted.' A second note states: 'Note that inclusion here is not intended as an endorsement of the package over other similar packages, we just aim for a small sample showing a range of areas not otherwise covered in this course.' The main content is titled 'Chemistry' and shows a code editor for the 'mhchem' package. The code is as follows:

```

1 \documentclass{article}
2 \usepackage{mhchem}
3 \begin{document}
4 \ce{Hg^{2+} ->[I-] HgI2 ->[I-] (Hg^{II})I4^{2-}}
5 \end{document}
6

```

At the bottom of the code editor, there are two buttons: 'Open in Overleaf' and 'LaTeX Online'.

Figure 1: Interface for runnable example.