

Formatting documents in APA style (7th Edition) with the **apa7** L^AT_EX class*

Daniel A. Weiss[†]

Released 2020/12/05

Abstract

The *Publication Manual* of the American Psychological Association is widely used in the social sciences. The most recent update, in 2019, altered the formatting guidelines and therefore rendered existing formatting solutions inadequate. The **apa7** class is an update of older code from the **apa6** class. The student manuscript type has been added.

Contents

1	Background	2
2	Disclaimer	2
3	apa7 Version 2.01 Changes to Authors and Affiliations	2
4	Usage	3
4.1	Class Options	3
4.2	Document Preamble	5
4.2.1	Document Title and Headers	5
4.2.2	Authors and Affiliations	5
4.2.3	Title Page Information	6
4.3	Maketitle	7
4.4	Heading Levels	7
4.5	Enumeration	8
4.6	Other Macros	9
4.7	Appendices	9
5	Known Limitations	10

*This file describes version 2.07, last revised 2020/12/05.

[†]E-mail: daniel.weiss.led@gmail.com

6	Development of apa7	10
6.1	Section Headings	10
6.2	Author Note	10
7	Features	10
7.1	Masked References	10
7.2	Repositioned Floats	11
7.3	User-defined Font Size	12
7.4	Watermark	12
7.5	Flexible Bibliographies	12
7.5.1	biblatex	12
7.5.2	apacite	12
7.5.3	natbib	12
7.6	Keywords	13
7.7	Float Placement	13
8	Dependencies	13
9	Examples	14
9.1	shortsample.tex	15
9.2	shortsample.pdf	18

1 Background

Most journals in the social sciences require manuscripts to be formatted in compliance with the American Psychological Association’s *Publication Manual*, which is updated periodically. The 7th Edition, released in 2019, substantially changed the guidelines for formatting manuscripts; these modifications rendered existing formatting solutions (e.g., the `apa6` L^AT_EX class) inadequate for venues in which 7th Edition guidelines are being enforced. The `apa7` class solves this problem, and provides some new functionality not offered by the `apa6` class.

2 Disclaimer

Great care has been taken to ensure the closest possible match between APA requirements and the output of this class. However, it is the sole responsibility of the user to ensure compliance with specific journal submission requirements!

3 apa7 Version 2.01 Changes to Authors and Affiliations

The way that authors and affiliations work has been changed in version 2.01 to be APA 7th edition compliant. This change will require updating any multiple

author and/or multiple affiliation documents to use the new `\authorsnames` and `\authorsaffiliations` commands (See Section 4.2.2).

4 Usage

4.1 Class Options

When loading `apa7` with `\documentclass[⟨options⟩]{apa7}`, the following options are available.

Document mode: Four choices are available.

- | | |
|------------------|---|
| <code>jou</code> | • <code>jou</code> (default): Formats the document with an appearance resembling a printed APA journal (e.g., <i>Journal of Educational Psychology</i> . The text is typeset in two-sided, two-column format. |
| <code>man</code> | • <code>man</code> : Formats the document in close (if not complete) compliance with the requirements for submission to an APA journal (e.g., title page, double-spacing, etc.). |
| <code>stu</code> | • <code>stu</code> : Formats the document in close (if not complete) compliance with the requirements for student paper (e.g., title page, double-spacing, etc.). |
| <code>doc</code> | • <code>doc</code> : Formats the document as a typical L ^A T _E X document (one-sided, single-column, etc.) |

Other class options:

- | | |
|-------------------------------|--|
| <code>10pt</code> | • <code>10pt</code> : Typesets the document in 10-point font. |
| <code>11pt</code> | • <code>11pt</code> : Typesets the document in 11-point font. |
| <code>12pt</code> | • <code>12pt</code> : Typesets the document in 12-point font. |
| <code>a4paper</code> | • <code>a4paper</code> : Specifies A4 paper size (letter is default). |
| <code>nolmodern</code> | • <code>nolmodern</code> : Suppresses loading of the <code>lmodern</code> package. |
| <code>nofontenc</code> | • <code>nofontenc</code> : Suppresses loading of the <code>fontenc</code> package (which is needed for proper hyphenation of accented characters). |
| <code>babel</code> | • <code>babel</code> : In all modes, loads <code>babel</code> ; the desired language(s) are listed as options immediately following <code>babel</code> ; the last language listed is the main one. |
| <code>donotrepeattitle</code> | • <code>donotrepeattitle</code> : Suppress the title above the introduction (in case a different title is desired). |
| <code>noextraspace</code> | • <code>noextraspace</code> : In <code>man</code> and <code>stu</code> mode, removes some of the vertical space between certain elements (e.g., headers and text) in an attempt to more closely resemble true double-spacing (use at your own risk). |

<code>floatsintext</code>	<ul style="list-style-type: none"> • <code>floatsintext</code>: In <code>man</code> and <code>stu</code> mode, integrates floats (tables and figures) within the body of the text instead of postponing them until after the reference list.
<code>biblatex</code>	<ul style="list-style-type: none"> • <code>biblatex</code>: Loads the <code>biblatex</code> package; see Section 7.5.1 for details.
<code>apacite</code>	<ul style="list-style-type: none"> • <code>apacite</code>: Loads the <code>apacite</code> package; see Section 7.5.2 for details. <i>Note: at this time, this will produce citations in 6th edition format.</i>
<code>natbib</code>	<ul style="list-style-type: none"> • <code>natbib</code>: See Section 7.5.3 for details. <i>Note: at this time, this will produce citations in 6th edition format.</i>
<code>mask</code>	<ul style="list-style-type: none"> • <code>mask</code>: Masks references that are marked as the author’s own (for masked peer review); see Section 7.1 for details.
<code>longtable</code>	<ul style="list-style-type: none"> • <code>longtable</code>: If you <i>must</i> use long tables (exceeding one page in length), try this option (but it may not work in all contexts). Do <i>not</i> load <code>longtable</code> yourself because of precedence requirements with the <code>endfloat</code> package. Copy the file <code>APA7endfloat.cfg</code> from the “config” folder of your <code>apa</code> installation to the working folder of your document (not in your <code>texmf</code> tree), and rename it to <code>endfloat.cfg</code> so that <code>endfloat</code> will recognize it. The supplied <code>APA7endfloat.cfg</code> file will also be necessary in conjunction with the <code>rotating</code> package (and its <code>\sideways</code> command) to produce rotated tables; this works for <code>man</code> and <code>stu</code> mode only. For rotated tables in <code>jou</code> or <code>doc</code> mode, the <code>rotating</code> package may be used. If sideways tables get pushed to the end of your document with the <code>floatsintext</code> option, try using the <code>ph!</code> placement specifier for your sideways table(s); for example, <code>\begin{sidewaystable}[ph!]</code>.
<code>notxfonts</code>	<ul style="list-style-type: none"> • <code>notxfonts</code>: In <code>jou</code> mode, prevents <code>txfonts</code> from loading, in case <code>pslatex</code> or <code>times</code> is preferable for some reason.
<code>notimes</code>	<ul style="list-style-type: none"> • <code>notimes</code>: In <code>jou</code> mode, cancels loading <code>txfonts</code> or <code>pslatex</code> or <code>times</code> and uses Computer Modern instead.
<code>notab</code>	<ul style="list-style-type: none"> • <code>notab</code>: In <code>jou</code> mode, cancels the automatic stretching of tabular environments to the width of their enclosing float.
<code>helv</code>	<ul style="list-style-type: none"> • <code>helv</code>: In <code>man</code> and <code>stu</code> mode, uses Helvetica font instead of Computer Modern.
<code>nosf</code>	<ul style="list-style-type: none"> • <code>nosf</code>: In <code>man</code> and <code>stu</code> mode, neutralizes the <code>\helvetica</code> command.
<code>tt</code>	<ul style="list-style-type: none"> • <code>tt</code>: In <code>man</code> and <code>stu</code> mode, uses typewriter-like font.
<code>draftfirst</code>	<ul style="list-style-type: none"> • <code>draftfirst</code>: In all modes, places the word “DRAFT” as a watermark across the first page.
<code>draftall</code>	<ul style="list-style-type: none"> • <code>draftall</code>: In all modes, places the word “DRAFT” as a watermark across all pages.

Class options not handled by `apa7` (e.g., `draft`) will be passed on to the `article` class.

4.2 Document Preamble

The following commands are available within the document preamble (i.e., the part of the file preceding `\begin{document}`).

4.2.1 Document Title and Headers

<code>\title</code>	<ul style="list-style-type: none">• <code>\title{<document-title>}</code>: The title of the document
<code>\shorttitle</code>	<ul style="list-style-type: none">• <code>\shorttitle{<short-title>}</code>: A shortened version of the title (for page headers)
<code>\leftheader</code>	<ul style="list-style-type: none">• <code>\leftheader{<author-last-name(s)>}</code>: Author last name(s) (for even-page headers in <code>jou</code> mode)

Optional; use if desired:

<code>\journal</code>	<ul style="list-style-type: none">• <code>\journal{<journal-name>}</code>: Journal name or other note; typeset in the top left header of page 1 (<code>jou</code> and <code>doc</code> modes only); to change the starting page to a number other than 1, insert the following line immediately after <code>\maketitle</code>: <code>\setcounter{page}{<custom-page-number>}</code>
<code>\volume</code>	<ul style="list-style-type: none">• <code>\volume{<journal-volume>}</code>: Volume, number, pages; typeset in the top left header in <code>jou</code> and <code>doc</code> modes, underneath the content of <code>\journal</code>
<code>\ccopyy</code>	<ul style="list-style-type: none">• <code>\ccopyy{<copyright-notice>}</code>: Copyright notice, etc.; typeset in the top right header of page 1 (<code>jou</code> and <code>doc</code> modes only)
<code>\copnum</code>	<ul style="list-style-type: none">• <code>\copnum{<more-copyright-info>}</code>: Any additional text needed; typeset in the top right header in <code>jou</code> and <code>doc</code> modes, underneath the content of <code>\ccopyy</code>

4.2.2 Authors and Affiliations

Based on the new APA 7th edition style guide, the previous method for handling multiple authors and multiple affiliations has been deprecated as of version 2.01 of `apa7`.

The followings commands have been deprecated and will return an error:

```
\twoauthors{First Author(s)}{Second Author(s)}
\threeauthors{John and Jim}{Mary and Sue}{Nick}
\fourauthors{Helen}{Dick}{Tracy and Larry}{James Bond}
\fiveauthors{...}{...}{...}{...}{...}
\sixauthors{...}{...}{...}{...}{...}{...}
\twoaffiliations{Affil. of 1st Author(s)}{Affil. 2nd Author(s)}
\threeaffiliations{U of A}{U of B}{U of C}
\fouraffiliations{My Company}{Your Department}{Heaven}{Earth}
\fiveaffiliations{...}{...}{...}{...}{...}
\sixaffiliations{...}{...}{...}{...}{...}{...}
```

<code>\author</code>	• <code>\author{<author name>}</code> : Author name (if only 1 author)
<code>\affiliation</code>	• <code>\affiliation{<author's affiliation>}</code> : Author's affiliation (if only 1 affiliation)
<code>\authorsnames</code>	• <code>\authorsnames[<comma separated list of superscripts>]{<comma separated list of authors name(s)>}</code> : Authors names (if more than 1 author)

Where `{<authors names>}` is a comma separated list of authors in display order and `[<superscripts>]` is an optional comma separated list of affiliation superscripts. If there are multiple superscripts for one author, put the set of superscripts within `{ }`.

<code>\authorsaffiliations</code>	• <code>\authorsaffiliations{<comma separated list of affiliation(s)>}</code> : Author affiliation(s). Put each affiliation within <code>{ }</code> and separate each affiliation with a comma.
-----------------------------------	---

Examples:

One author, one affiliation

```
\authorsnames{Maggie C. Leonard}
```

```
\authorsaffiliations{{Department of Psychology, George Mason University}}
```

One author, two affiliations

```
\authorsnames{Andrew K. Jones-Willoughby}
```

```
\authorsaffiliations{{School of Psychology, University of Sydney},
{Center for Behavioral Neuroscience, American University}}
```

Two authors, shared affiliation

```
\authorsnames{Mackenzie J. Clement,Talia R. Cummings}
```

```
\authorsaffiliations{{College of Nursing, Michigan State University}}
```

Two authors, different affiliations

```
\authorsnames[1,2]{Wilhelm T. Webber,Latasha P. Jackson}
```

```
\authorsaffiliations{{Max Planck Institute for Human Development, Berlin, Germany},
{College of Education, University of Georgia}}
```


Three or more authors, different affiliations

```
\authorsnames[1,{2,3},1]{Savannah C. St. John, Fen-Lei Chang, Carlos O. Vásquez III}
```

```
\authorsaffiliations{{Education Testing Service, Princeton, New Jersey, ...},
{MRC Cognition and Brain Science Unit, Cambridge, England},
{Department of Psychology, University of Cambridge}}
```

4.2.3 Title Page Information

<code>\course</code>	• <code>\course{<course-number-name>}</code> : The course number and name (e.g. PSYC 3170: Clinical Psychology)
<code>\professor</code>	• <code>\professor{<professor>}</code> : The course professor name.
<code>\duedate</code>	• <code>\duedate{<paper-duedate>}</code> : The due date for the paper (e.g. October 1, 2019)
<code>\abstract</code>	• <code>\abstract{<abstract-text>}</code> : The abstract of the article

<code>\keywords</code>	<ul style="list-style-type: none"> • <code>\keywords{<keywords>}</code>: Keywords (typeset after the abstract) See Section 7.6 for details regarding language localization of the “Keywords” label.
<code>\authornote</code>	<ul style="list-style-type: none"> • <code>\authornote{<author-note>}</code>: The Author Note, containing contact information, acknowledgements, etc.
<code>\addORCIDlink</code>	<ul style="list-style-type: none"> • <code>\addORCIDlink{<author-name>}{<ORCID>}</code>: Optionally, use this within the author note to generate the ORCID link. For example <pre>\addORCIDlink{First M. Last}{0000-0000-0000-0000}</pre> generates First M. Last  https://orcid.org/0000-0000-0000-0000 Optional; use if desired:
<code>\note</code>	<ul style="list-style-type: none"> • <code>\note{<note-text>}</code>: Notation of manuscript date or other information desired beneath the affiliation line (not part of the APA 7th edition specification for title page)

4.3 Maketitle

<code>\maketitle</code>	The <code>\maketitle</code> command formats the document title, page headers, author list, author affiliations, Author Note (if provided), abstract according to whether <code>jou</code> , <code>man</code> , <code>stu</code> , or <code>doc</code> mode has been specified. This command should be on the line after <code>\begin{document}</code> , with the first line of text immediately following the <code>\maketitle</code> line (no blank lines).
-------------------------	--

4.4 Heading Levels

Heading levels are automatically formatted using the following standard L^AT_EX commands:

<code>\section</code>	• <code>\section{<title>}</code>
<code>\subsection</code>	• <code>\subsection{<title>}</code>
<code>\subsubsection</code>	• <code>\subsubsection{<title>}</code>
<code>\paragraph</code>	• <code>\paragraph{<title>}</code>
<code>\subparagraph</code>	• <code>\subparagraph{<title>}</code>

Please note that sections cannot be `\ref`’d since APA style does not use numbered sections. So `\label` commands are unnecessary unless you wish to use `\refname`.

4.5 Enumeration

Several forms of enumeration are provided, as follows.

```
\begin{seriate}      Blah blah blah
\end{seriate}        \begin{seriate}
                     \item first item,
                     \item second item.
\end{seriate}
Blah blah blah
```

results in:

```
Blah blah blah (a) first item, (b) second item. Blah blah blah
```

```
\begin{APAenumerate} Blah blah blah
\end{APAenumerate}  \begin{APAenumerate}
                     \item first item ... .. continue continue
                     \item second item ... .. continue continue
\end{APAenumerate}
Blah blah blah
```

results in:

```
Blah blah blah
  1. first item ... ..
continue continue
  2. second item ... ..
continue continue
Blah blah blah
```

```
\begin{APAitemize}   Blah blah blah
\end{APAitemize}     \begin{APAitemize}
                     \item first item ... .. continue continue
                     \item second item ... .. continue continue
\end{APAitemize}
Blah blah blah
```

results in:

```
Blah blah blah
  o first item ... ..
continue continue
  o second item ... ..
continue continue
Blah blah blah
```


In addition to the above, all standard L^AT_EX enumeration environments are available (e.g., `enumerate` and `itemize`).

4.6 Other Macros

<code>\begin{figure*}</code> <code>\end{figure*}</code> <code>\begin{table*}</code> <code>\end{table*}</code>	<ul style="list-style-type: none"> When a figure is too wide for a single column (in <code>jou</code> mode), use <code>\begin{figure*}</code> and <code>\end{figure*}</code> instead of the non-starred version. The same applies with <code>\begin{table*}</code> and <code>\end{table*}</code>. When using double-column tables or figures (<code>jou</code> mode), use the <code>\centering</code> command; for example: <pre> \begin{table*} \centering \begin{threeparttable} </pre>
<code>\figurenote</code>	<ul style="list-style-type: none"> <code>\figurenote{<figure-note-text>}</code>: Formats figure note when placed after <code>\includegraphics</code>, <code>\fitfigure</code>, or similar command within <code>\begin{figure}</code> and <code>\end{figure}</code>.
<code>\tablenote</code>	<ul style="list-style-type: none"> <code>\tablenote{<table-note-text>}</code>: Formats table note when placed after <code>\end{tabular}</code> or similar command within <code>\begin{table}</code> and <code>\end{table}</code>.
<code>\fitfigure</code>	<ul style="list-style-type: none"> <code>\fitfigure[<height>]{<eps-filename>}</code>: Automatically fit a postscript figure; use instead of <code>\includegraphics</code>
<code>\fitbitmap</code>	<ul style="list-style-type: none"> <code>\fitbitmap[<height>]{<eps-filename>}</code>: Same as <code>\fitfigure</code> but won't scale figure in <code>\man</code> mode for best reproduction of bitmap figures
<code>\tabfnm</code>	<ul style="list-style-type: none"> <code>\tabfnm{a}</code>: Place a superscript footnote mark inside a table cell. Any series of unique identifiers can be used in place of <code>a</code>.
<code>\tabfnt</code>	<ul style="list-style-type: none"> <code>\tabfnt{a}{<footnote-text>}</code>: Within table footnotes, specify the footnote text for <code>\tabfnm{a}</code>
<code>\apavector</code>	<ul style="list-style-type: none"> <code>\apavector{<symbol>}</code>: Format the <code>{<symbol>}</code> as a vector by APA rules

4.7 Appendices

<code>\appendix</code>	<ul style="list-style-type: none"> <code>\appendix</code>: Begins the appendices portion of the document
<code>\section</code>	<ul style="list-style-type: none"> <code>\section{<appendix-title>}</code>: Begins each appendix

Because appendices are numbered (with letters!) you may establish a label for each appendix (e.g., `\label{app:xxx}`); when there is more than one appendix, use `Appendix~\ref{app:xxx}` within the main body of the text to refer to that appendix. (Of course, if there is only one appendix, simply refer to it as the Appendix.)

5 Known Limitations

- The `APAenumerate` environment does not nest properly.

6 Development of `apa7`

The base code for this class is the `apa6` class, which in turn was based upon other sources. In order to comply with 7th Edition criteria, certain changes had to be made to update the `apa6` code.

6.1 Section Headings

Most prominently, the formatting of section headings had to be altered. The 7th Edition specifies a more straightforward series of heading levels than previous editions did. Briefly, the top-level heading is now boldfaced and centered, upper- and lower-case, no matter how many levels of heading are in the document; other heading levels have similar specifications. The `apa7` class utilizes code (with permission) from the `apa6` class to comply with all of these specifications.

Because the 7th Edition requires figure captions to be printed on the same page as their respective figures, there are no more Figure Captions pages.

6.2 Author Note

According to 7th Edition guidelines, Author Notes are now placed "in the bottom half of the title page" on the title page of manuscripts per the style guide.

7 Features

The features implemented in the `apa6` have been included in the `apa7` class for the 7th Edition of the *Manual*.

7.1 Masked References

When manuscripts are sent out for review, they customarily must have all identifying information stripped so that reviewers do not know who the author of the manuscript is. The new `mask` option suppresses the output of the author's name and affiliation, the author note, and any references that are marked as being the author's own.

To specify a reference that is to be masked with the `mask` option, simply prepend `mask` to the desired citation command (e.g., `\maskcite` instead of `\cite`). Supported bibliography packages are `biblatex`, `apacite`, and `natbib`. The specific masking commands are shown in Table 1. Prenotes and postnotes for citations are supported with both `biblatex` and `natbib`; however, they are not supported with the `apacite` package.

Table 1: Supported masking commands

Unmasked Result	Masking Commands		
	apacite	natbib	biblatex
(van Dijk, 2001)	<code>\maskcite</code>	<code>\maskcitep</code>	<code>\maskparencite</code>
(Van Dijk, 2001)		<code>\maskCitep</code>	<code>\maskParencite</code>
van Dijk, 2001	<code>\maskciteNP</code>	<code>\maskcitealp</code>	<code>\maskcite</code>
Van Dijk, 2001		<code>\maskCitealp</code>	<code>\maskCite</code>
van Dijk (2001)	<code>\maskciteA</code>	<code>\maskcitet</code>	<code>\masktextcite</code>
Van Dijk (2001)		<code>\maskCitet</code>	<code>\maskTextcite</code>
van Dijk	<code>\maskciteauthor</code>	<code>\maskciteauthor</code>	<code>\maskciteauthor</code>
Van Dijk		<code>\maskCiteauthor</code>	<code>\maskCiteauthor</code>
(2001)	<code>\maskciteyear</code>	<code>\maskciteyearpar</code>	
2001	<code>\maskciteyearNP</code>	<code>\maskciteyear</code>	<code>\maskciteyear</code>

To mask citations that have been prepended with `mask` (and the corresponding bibliography entries), the name of the bibliography package must also be passed in as an option on the `\documentclass` line, in addition to the `mask` option. For example, `\documentclass[jou,biblatex,mask]{apa7}`. (But as explained later, the `biblatex` option is the default and is therefore not required, even with the `mask` option.)

Be warned, however, that if you have previously generated .bbl, etc., files without the `mask` option applied, those files must be deleted or re-written before L^AT_EX-ing with the `mask` option—otherwise, you will see the to-be-masked entries showing up in the bibliography.

Masked citations are replaced with the text, *(2 citations removed for masked review)* (in the case of two masked citations). The corresponding entries in the References section are also suppressed.

There is no need to revise the masked citations when removing the `mask` option for final production. The citations that were previously masked will not be masked in the absence of the `mask` option.

The `mask` command does not apply to `stu` type documents.

7.2 Repositioned Floats

When revising and proofreading a manuscript, it is most helpful to have the tables and figures readily available (rather than turning most of the way to the end of the manuscript to access them). The `floatsintext` option (specified in the `\documentclass` line) will integrate tables and figures approximately where they are mentioned in the text. This is available only with the `man` and `stu` options, of course, because the other formats already have floats integrated with the text.

7.3 User-defined Font Size

`10pt` Users can now select from the font-size options available in standard L^AT_EX
`11pt` (10pt, 11pt, 12pt) by including the appropriate option (e.g., `10pt`) in the
`12pt` `\documentclass` line. The default font size is 10pt for `jou` mode, 11pt for `doc`
mode, and 12pt for `man` mode.

7.4 Watermark

`draftfirst` If desired, a “DRAFT” watermark can be placed on either the first pages or all
`draftall` pages of the document with the `draftfirst` and `draftall` options, respectively.
The text, font size, angle, and lightness of the text can all be modified using com-
mands explained in the `draftwatermark` documentation. Also loads the `everypage`
package.

7.5 Flexible Bibliographies

The `apa7` class supports three bibliography packages: `biblatex`, `apacite`, and `natbib`.

At this time, only `biblatex` is updated to support the 7th edition of APA style for citations and references.

7.5.1 `biblatex`

***Note:** This is the recommended method for 7th edition citations and references.*
`biblatex` Biblatex is the most APA-compliant bibliography package. The `biblatex`
option directs `apa7` to load the `biblatex` package with the following options:
`style=apa,sortcites=true,sorting=nyt`; however, the `\DeclareLanguageMapping`
and `\addbibresource` commands will need to be specified by the user within
the document preamble. In the absence of bibliographic options, `apa7` will mask
references using `biblatex` commands if the `mask` option is specified. In other words,
the only reason to use the `biblatex` option is to have `apa7` automatically load the
`biblatex` package.

7.5.2 `apacite`

***Note:** at this time, this will produce citations in 6th edition format.*
`apacite` The `apacite` package is loaded if the `apacite` option is specified. This option also
informs `apa7` to mask references using `apacite` commands if the `mask` option is
specified. **The `apacite` package is *not* loaded by default.**

7.5.3 `natbib`

***Note:** at this time, this will produce citations in 6th edition format.*
`natbib` Specifying the `natbib` option implicitly loads `apacite` and `natbib` and directs `apa7`
to mask references using `natbib` commands if the `mask` option is specified.

7.6 Keywords

`\keywords`

Many journals (including APA journals) request authors to provide keywords for their manuscripts to facilitate electronic indexing. `apa6` introduced the `\keywords` command. If provided, keywords will be displayed on a line beneath the abstract. For languages other than English, the ‘Keywords’ label can be localized by modifying the appropriate configuration file (in the ‘config’ folder of the `apa7` installation).

7.7 Float Placement

The 7th Edition (as did the 6th Edition) requires that tables and figures (in that order) be placed after the references but before the appendices. This creates a bit of a conundrum as to what should happen with tables or figures that are ultimately typeset within an appendix. The choices we are left with are to place appendix floats (a) along with the floats from the main part of the manuscript, which would mean that appendix floats appear prior to the point at which they are mentioned; (b) within the appendices themselves, which is not consistent with how floats in the main part of the manuscript are handled; or (c) in a separate float section that follows the appendices, which results in two float sections. Obviously none of these choices is satisfactory, so Brian Beitzel (author of `apa6` package) posed the question to APA’s Style Expert. The style expert responded that at least for APA’s journals “it doesn’t matter whether appendix tables are submitted with text tables or separately, as long as they are numbered correctly (e.g., Table A1, Table B1, etc.)” (J. Hume-Pratuch, personal communication, June 15, 2011). Therefore, `apa7` takes the same approach as `apa6`: the most straightforward approach that includes all appendix floats within the body of the relevant appendix. This also has the advantage of making appendices more readable.

8 Dependencies

`apa7` automatically loads the following packages. If these packages are not already installed, producing the first `apa7` document could take a few minutes while these packages are downloaded and installed.

- `apacite`: bibliography package; used only if the `apacite` or `natbib` option has been specified
- `biblatex`: bibliographic package; used only if the `biblatex` option has been specified
- `booktabs`: formats tables that are much more attractive than the standard \LaTeX tables.
- `caption`: formats table and figure captions
- `draftwatermark`: includes a “DRAFT” watermark; used only if the `draftfirst` or `draftall` options are specified (`draftwatermark` automatically loads `every-`page

- **endfloat**: handles placing tables and figures at the end of a manuscript; used only with the **man** and **stu** options
- **etoolbox**: provides low-level hooks needed to detect user-loaded packages
- **fancyhdr**: formats page headers
- **float**: handles floats placed within text; used only when the **man** and **floatsintext** options are both specified **biblatex** package (when loaded by the user in the document preamble) in time to set the “References” heading to non-boldface; used only if no bibliographic options have been specified
- **geometry**: formats margins
- **graphicx**: allows inclusion of figures
- **hyperref**: needed for ORCID link
- **longtable**: formats tables that exceed one page in length; loaded only if the **longtable** option is specified. Also loads the **array** package.
- **lmodern**: needed for proper default text size for draft watermark, so used on all documents; may be suppressed from loading with option **nomodern**.
- **scalerel**: needed for ORCID logo sizing
- **substr**: counts masked references; used only if the **mask** option is specified
- **threeparttable**: produces nicely formatted table notes that comply with APA style. See **longsample.tex** (in the “samples” subfolder of the **apa7** installation; specifically, Appendix B in that document) for how to set up a table with notes.
- **tikz**: needed for ORCID logo
- **times**: for math definitions

9 Examples

Sample documents are included with this class; look in the “samples” subfolder of your installation. The source and output for **shortsample.tex** are reproduced on the following pages for quick reference.

9.1 shortsample.tex

```
\documentclass[jou]{apa7}

\usepackage[american]{babel}

\usepackage{csquotes}
\usepackage[style=apa,sortcites=true,sorting=nyt,backend=biber]{biblatex}
\DeclareLanguageMapping{american}{american-apa}
\addbibresource{bibliography.bib}

\title{Sample APA-Style Document Using the \textsf{apa7} Package}

\author{Daniel A. Weiss}
\affiliation{A University Somewhere}

\lefthead{Weiss}

\abstract{This demonstration paper uses the \textsf{apa7} \LaTeX\
class to format the document in compliance with the 7th Edition of
the American Psychological Association's \textit{Publication Manual}.
The references are managed using \textsf{biblatex}..}

\keywords{APA style, demonstration}

\begin{document}

    \maketitle

    We begin with \textcite{Shotton1989}. We can also cite this work in
    parenthesis, like this: \parencite{Shotton1989}.

    A three-author paper \parencite[e.g.,][Lassen2006] lists all
    three authors for the first citation, then only the first author
    on all subsequent citations \parencite{Lassen2006}.

    Note the use of five heading levels throughout this demonstration

        Method section.

\section{Method}
\subsection{Participants}
We had a lot of people in this study.

\subsection{Materials}
Several materials were used for this project. Some of them were
already created for prior research.
```

`\subsubsection{Paper-and-Pencil Instrument}`
 We used an instrument that we found to be highly successful.

`\paragraph{Reliability}`
 The reliability of this instrument is extraordinary.

`\paragraph{Validity}`
 We now discuss the validity of our instrument.

`\subparagraph{Face validity}` The face validity is exceptionally strong. Everyone should be impressed.

`\subparagraph{Construct validity}` Also very strong.

`\subsection{Design}`
 This section describes the study's design.

`\subsection{Procedure}`
 The procedure was fairly straightforward, yet required attention to detail.

`\section{Results}`
 Table `\ref{tab:ComplexTable}` contains some sample data. Our statistical prowess in analyzing these data is unmatched.

`\begin{table}[htbp]`

```

      \vspace*{2em}
\begin{threeparttable}
  \caption{A Complex Table}
  \label{tab:ComplexTable}
  \begin{tabular}{@{}lrrr@{}}
    Distribution type & \multicolumn{2}{l}{Percentage of} & Total number & \\
    & \multicolumn{2}{l}{targets with} & of trials per & \\
    & \multicolumn{2}{l}{segment in} & participant & \midrule{2-3}
    & Onset & Coda & & \midrule
    Categorical -- onset\tabfnm{a} & 100 & 0 & 196 & \\
    Probabilistic & 80 & 20\tabfnm{*} & 200 & \\
    Categorical -- coda\tabfnm{b} & 0 & 100\tabfnm{*} & 196 & \midrule
  \end{tabular}
  \tablenote{All data are approximate.

```

`\tabfnt{a}`Categorical may be onset.
`\tabfnt{b}`Categorical may also be coda.


```

        \tabfnt{*}\textit{p} < .05.
        \tabfnt{**}\textit{p} < .01.

    }
\end{threeparttable}

\end{table}

\section{Discussion}
This is a lengthy and erudite discussion. It demonstrates amazing
skill in interpreting the results for the masses.

\printbibliography

\end{document}

```

Sample APA-Style Document Using the apa7 Package

Daniel A. Weiss
Departement of Psychology
A University Somewhere

This demonstration paper uses the apa7 L^AT_EX class to format the document in compliance with the 7th Edition of the American Psychological Association’s *Publication Manual*. The references are managed using biblatex.

Keywords: APA style, demonstration

We begin with Shotton (1989). We can also cite this work in parenthesis, like this: (Lassen et al., 2006).

Note the use of five heading levels throughout this demonstration Method section.

Method

Participants

We had a lot of people in this study, show in Figure 1.

Materials

Several materials were used for this project. Some of them were already created for prior research.

Paper-and-Pencil Instrument

We used an instrument that we found to be highly successful.

Reliability. The reliability of this instrument is extraordinary.

Validity. We now discuss the validity of our instrument.

Face validity. The face validity is exceptionally strong. Everyone should be impressed.

Construct validity. Also very strong.

Design

This section describes the study’s design.

Procedure

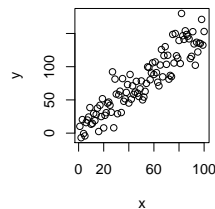
The procedure was fairly straightforward, yet required attention to detail.

© Daniel A. Weiss, Department of Psychology, A University Somewhere

Changes of Affiliations and other info here to describe what needs to be said

Figure 1

This is my figure caption.



Note. This is an awesome figure.

Results

Table 1 contains some sample data. Our statistical prowess in analyzing these data is unmatched.

Table 1

A Complex Table

Distribution type	Percentage of targets with segment in		Total number of trials per participant
	Onset	Coda	
Categorical – onset ^a	100	0	196
Probabilistic	80	20*	200
Categorical – coda ^b	0	100*	196

Note. All data are approximate.

^aCategorical may be onset. ^bCategorical may also be coda.

p* < .05. *p* < .01.

Change History

v1.00		optional running head (shorttitle) in stu mode. 1
General: Initial release 1		
v1.01	v1.09	
General: Clarified that apacite and natbib are in 6th edition style. . 1	General: Fixed note command (will no longer print "Author Note" header). 1	
Corrected figure caption styles for doc format. 1		
v1.02	v2.01	
General: Fixed filename issue with language localization files. 1	General: Re-wrote author and affiliation to be APA7 compliant. Fixed spacing on Title Page for title and author. 1	
v1.03	v2.02	
General: Updated class to detect babel package in document and localize accordingly. 1	General: Added the "and" in multiple author list to localization files. 1	
v1.04	v2.03	
General: Added table of contents. Updated documentation and added correct license statement to cls for apa6 package. 1	General: Added French localization. 1	
v1.05	v2.04	
General: Fixed float placement at end for man and stu mode to ensure one correctly placed figure/table per page. Thanks WC. 1	General: Updated ORCID link style for jou mode. 1	
v1.06	v2.05	
General: Added figurenote command. 1	General: Fixed a bug with the noextraspaces option and added donotrepeattitle option to the documentation. 1	
v1.07	v2.06	
General: Fixed bug in figurenote command. Fixed figure title formatting in doc mode. Thanks RH. 1	General: Added tablenote command. Added "Note." for table/figure notes to localization files. 1	
v1.08	v2.07	
General: Added support for	General: Extended mask command to also mask in stu mode. 1	