Formatting documents in APA style (6th Edition) with the apa6 LaTeX class*

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Abstract

The *Publication Manual* of the American Psychological Association is widely used in the social sciences. The most recent update, in 2009, altered the formatting guidelines and therefore rendered existing formatting solutions inadequate. The apa6 class is an update of older code from the apa class, which is no longer being maintained. New features have also been added, such as suppressing references to one's own work to facilitate masked reviews of manuscripts by independent reviewers.

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 6th Edition, released in 2009, substantially changed the guidelines for formatting manuscripts; these modifications rendered existing formatting solutions (e.g., the apa LaTeX class) inadequate for venues in which 6th Edition guidelines are being enforced. The apa6 class solves this problem, and provides some new functionality not offered by the apa 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!

*This file describes version 2.32, last revised 2017/06/20.

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3 Usage

3.1 Class Options

When loading apa6 with `\documentclass[`⟨*options*⟩`]{apa6}`, the following options are available.

Document mode: Three choices are available.

`jou` • `jou` (default): Formats the document with an appearance resembling a printed APA journal (e.g., *Journal of Educational Psychology*. The text is typeset in two-sided, two-column format.

`man` • `man`: 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.).

`doc` • `doc`: Formats the document as a typical LaTeX document (one-sided, single-column, etc.)

Other class options:

`10pt` • `10pt`: Typesets the document in 10-point font.

`11pt` • `11pt`: Typesets the document in 11-point font.

`12pt` • `12pt`: Typesets the document in 12-point font.

`a4paper` • `a4paper`: Specifies A4 paper size (letter is default).

`nolmodern` • `nolmodern`: Suppresses loading of the lmodern package.

`nofontenc` • `nofontenc`: Suppresses loading of the fontenc package (which is needed for proper hyphenation of accented characters).

`babel` • `babel`: In all modes, loads babel; the desired language(s) are listed as options immediately following `babel`; the last language listed is the main one.

`noextraspace` • `noextraspace`: In `man` 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).

`floatsintext` • `floatsintext`: In `man` mode, integrates floats (tables and figures) within the body of the text instead of postponing them until after the reference list.

`biblatex` • `biblatex`: Loads the biblatex package; see Section **??** for details.

`apacite` • `apacite`: Loads the apacite package; see Section **??** for details.

`natbib` • `natbib`: See Section **??** for details.

`mask` • `mask`: Masks references that are marked as the author's own (for masked peer review); see Section **??** for details.

longtable
- `longtable`: If you *must* use long tables (exceeding one page in length), try this option (but it may not work in all contexts). Do ***not*** load longtable yourself because of precedence requirements with the endfloat package. Copy the file `APAendfloat.cfg` from the "config" folder of your `apa` installation to the working folder of your document (not in your `texmf` tree), and rename it to `endfloat.cfg` so that endfloat will recognize it. The supplied `APAendfloat.cfg` file will also be necessary in conjunction with the rotating package (and its `\sideways` command) to produce rotated tables; this works for `man` mode only. For rotated tables in `jou` or `doc` mode, the rotating package may be used. If sideways tables get pushed to the end of your document with the `floatsintext` option, try using the `ph!` placement specifier for your sideways table(s); for example, `\begin{sidewaystable}[ph!]`.

notxfonts
- `notxfonts`: In `jou` mode, prevents txfonts from loading, in case pslatex or times is preferable for some reason.

notimes
- `notimes`: In `jou` mode, cancels loading txfonts or pslatex or times and uses Computer Modern instead.

notab
- `notab`: In `jou` mode, cancels the automatic stretching of tabular environments to the width of their enclosing float.

helv
- `helv`: In `man` mode, uses Helvetica font instead of Computer Modern.

nosf
- `nosf`: In `man` mode, neutralizes the `\helvetica` command.

tt
- `tt`: In `man` mode, uses typewriter-like font.

draftfirst
- `draftfirst`: In all modes, places the word "DRAFT" as a watermark across the first page.

draftall
- `draftall`: In all modes, places the word "DRAFT" as a watermark across all pages.

Class options not handled by apa6 (e.g., `draft`) will be passed on to the article class.

3.2 Document Preamble

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

\title
- `\title{`⟨*document-title*⟩`}`: The title of the document

\shorttitle
- `\shorttitle{`⟨*short-title*⟩`}`: A shortened version of the title (for page headers)

\author
- `\author{`⟨*author(s)*⟩`}`: Author name(s)

For authors across multiple affiliations, follow these formats, noting that authors must be matched in sequence with their affiliations in the `\affiliation` command (hence multiple authors inside some braces represent multiple authors from the same institution):

```
\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{...}{...}{...}{...}{...}{...}
```

`\leftheader` • `\leftheader{`⟨*author-last-name(s)*⟩`}`: Author last name(s) (for even-page headers in `jou` mode)

`\affiliation` • `\affiliation{`⟨*affiliation(s)*⟩`}`: Author affiliation(s)

For multiple affiliations, follow these formats:

```
\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{...}{...}{...}{...}{...}{...}
```

`\abstract` • `\abstract{`⟨*abstract-text*⟩`}`: The abstract of the article

`\keywords` • `\keywords{`⟨*keywords*⟩`}`: Keywords (typeset after the abstract) See Section **??** for details regarding language localization of the "Keywords" label.

`\authornote` • `\authornote{`⟨*author-note*⟩`}`: The Author Note, containing contact information, acknowledgements, etc.

Optional; use if desired:

`\note` • `\note{`⟨*note-text*⟩`}`: Notation of manuscript date or other information desired beneath the affiliation line

`\journal` • `\journal{`⟨*journal-name*⟩`}`: Journal name or other note; typeset in the top left header of page 1 (`jou` and `doc` modes only); to change the starting page to a number other than 1, insert the following line immediately after `\maketitle`:
`\setcounter{page}{`⟨*custom-page-number*⟩`}`

`\volume` • `\volume{`⟨*journal-volume*⟩`}`: Volume, number, pages; typeset in the top left header in `jou` and `doc` modes, underneath the content of `\journal`

`\ccoppy` • `\ccoppy{`⟨*copright-notice*⟩`}`: Copyright notice, etc.; typeset in the top right header of page 1 (`jou` and `doc` modes only)

`\copnum` • `\copnum{`⟨*more-copyright-info*⟩`}`: Any additional text needed; typeset in the top right header in `jou` and `doc` modes, underneath the content of `\ccoppy`

3.3 Maketitle

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

3.4 Heading Levels

Heading levels are automatically formatted using the following standard LaTeX commands:

\section
- `\section{`⟨*title*⟩`}`

\subsection
- `\subsection{`⟨*title*⟩`}`

\subsubsection
- `\subsubsection{`⟨*title*⟩`}`

\paragraph
- `\paragraph{`⟨*title*⟩`}`

\subparagraph
- `\subparagraph{`⟨*title*⟩`}`

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`.

3.5 Enumeration

Several forms of enumeration are provided, as follows.

\begin{seriate}
\end{seriate}

```
Blah blah blah
\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}
\end{APAenumerate}

```
Blah blah blah
\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}
\end{APAitemize}

```
Blah blah blah
\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 LaTeX enumeration environments are available (e.g., `enumerate` and `itemize`).

3.6 Other Macros

\begin{figure*}
\end{figure*}
\begin{table*}
\end{table*}

- When a figure is too wide for a single column (in `jou` mode), use `\begin{figure*}` and `\end{figure*}` instead of the non-starred version. The same applies with `\begin{table*}` and `\end{table*}`. When using double-column tables or figures (`jou` mode), use the `\centering` command; for example:

```
\begin{table*}
  \centering
    \begin{threeparttable}
```

\fitfigure

- `\fitfigure[`⟨*height*⟩`]{`⟨*eps-filename*⟩`}`: Automatically fit a postscript figure; use instead of `\includegraphics`

\fitbitmap

- `\fitbitmap[`⟨*height*⟩`]{`⟨*eps-filename*⟩`}`: Same as `\fitfigure` but won't scale figure in `\man` mode for best reproduction of bitmap figures

\tabfnm

- `\tabfnm{a}`: Place a superscript **f**oot**n**ote **m**ark inside a table cell. Any series of unique identifiers can be used in place of `a`.

\tabfnt
- `\tabfnt{a}{`⟨*footnote-text*⟩`}`: Within table footnotes, specify the **f**oot**n**ote **t**ext for `\tabfnm{a}`

\apavector
- `\apavector{`⟨*symbol*⟩`}`: Format the `{`⟨*symbol*⟩`}` as a vector by APA rules

3.7 Appendices

\appendix
- `\appendix`: Begins the appendices portion of the document

\section
- `\section{`⟨*appendix-title*⟩`}`: 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`.)

4 Known Limitations

- There is a limit of six affiliations for authors (but an unlimited number of authors across those six affiliations).
- The `APAenumerate` environment does not nest properly.

5 Development of apa6

The base code for this class is the apa class, which in turn was based upon other sources. In order to comply with 6th Edition criteria, certain changes had to be made to update the apa code.

5.1 Section Headings

Most prominently, the formatting of section headings had to be altered. The 6th 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 now many levels of heading are in the document; other heading levels have similar specifications. The apa6 class utilizes code (with permission) from the apa6e class to comply with all of these specifications.

5.2 Float Placement

The placement of floats (i.e., tables and figures) within an APA-style manuscript has also changed. 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 I posed the question to APA's Style Expert. He 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, apa6 takes the most straightforward approach and includes all appendix floats within the body of the relevant appendix. This also has the advantage of making appendices more readable.

Because the 6th Edition requires figure captions to be printed on the same page as their respective figures, there are no more Figure Captions pages.

5.3 Author Note

According to 6th Edition guidelines, Author Notes are placed on the title page of manuscripts.

6 New features

In addition to providing compatibility with the 6th Edition of the *Manual*, several new features have been implemented beyond those available in the apa class.

6.1 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
`mask` 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 **??**. Prenotes and postnotes for citations are supported with both biblatex and natbib; however, they are not supported with the apacite package.

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]{apa6}`. (But as explained later, the `biblatex` option is the default and is therefore not required, even with the `mask` option.)

Table 1: Supported masking commands

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

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 LaTeX-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.

6.2 Repositioned Floats

`floatsintext`

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` option, of course, because the other formats already have floats integrated with the text.

6.3 User-defined Font Size

`10pt` `11pt` `12pt`

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

6.4 Watermark

draftfirst
draftall

If desired, a "DRAFT" watermark can be placed on either the first pages or all 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 commands explained in the draftwatermark documentation. Also loads the everypage package.

6.5 Flexible Bibliographies

The apa6 class supports three bibliography packages: biblatex, apacite, and natbib.

6.5.1 biblatex

biblatex

Biblatex is the most APA-compliant bibiliography package. The `biblatex` option directs apa6 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, apa6 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 apa6 automatically load the biblatex package.

6.5.2 apacite

apacite

The apacite package is loaded if the `apacite` option is specified. This option also informs apa6 to mask references using apacite commands if the `mask` option is specified. **The apacite package is *not* loaded by default.**

6.5.3 natbib

natbib

Specifying the `natbib` option implicitly loads apacite and natbib and directs apa6 to mask references using natbib commands if the `mask` option is specified.

6.6 Keywords

\keywords

Many journals (including APA journals) request authors to provide keywords for their manuscripts to facilitate electronic indexing. apa6 introduces 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 apa6 installation).

6.7 Converting to Microsoft Word®

A common requirement for manuscript submission is that the document be in Microsoft Word® format. LaTeX provides no easy way to convert to Word in

APA format. Several conversion utilities are available, but after researching and testing several of them, it seems that most of them—besides being incredibly challenging to implement—are incapable of formatting anything close to APA style. One software package clearly stands out from the group, however: Chikrii Softlab's TeX2Word™ (`http://www.chikrii.com/products/tex2word/`; compatible with Microsoft Windows® only). The distinct advantage of this software is that it is extensible, allowing customizable interpretation of LaTeX commands in a user-specified file—which is exactly what I have created for `apa6`. The file `apa6.ptex` is included in the "pseudoTeX" subfolder of the `apa6` installation. After installing TeX2Word (a 30-day trial period is available), find its "pseudoTeX" folder (which contains all the `.ptex` files automatically generated by TeX2Word), and copy `apa6.ptex` into that folder. To convert your `apa6` LaTeX document, start Microsoft Word (it must be 32-bit) and open your `apa6` document just as you would open any other document in Word. The conversion process will run automatically and a mostly-ready document will be produced. Formatting of the title page, abstract page, section headings, double-spacing, table and figure captions, boldfaced and italicized text are all handled by the converter. Instructions for finishing the conversion process will be displayed on the title page of the converted document. Mostly this involves moving floats (tables and figures) to their places toward the end of the manuscript, some table re-formatting, and editing of bibliographic information. If you wish to have this editing more automated, you can open Word's Visual Basic Editor and import the "TeX2WordForapa6.bas" file (from the "pseudoTeX" subfolder of the `apa6` installation) as a new module, delete the lines beginning with percent signs at the top and bottom of the module, then run its `FormatTex2WordDocument` macro. This will complete all of the above steps and configure the bibliographic information as temporary citations that EndNote can then interpret (see below for details). However, some minor editing is still necessary (e.g., table titles and footnotes are not moved). For more efficient use of this macro, create a new Word document, open the Visual Basic Editor (VBE) and import the "TeX2WordForapa6.bas" file as a new module (be sure to delete all lines beginning with two percent signs); close the VBE and save the document in your "Word Startup" folder. Then the `FormatTex2WordDocument` macro will be available from the Macros dialog in Word for all documents.

The major weakness of TeX2Word at the moment is a near-total lack of support for bibliographic packages. Version 2.0 of `apa6` introduced mechanisms in the `apa6.ptex` file and the `FormatTex2WordDocument` macro to establish compatibility with EndNote for handling bibliographic citations and the reference list when using TeX2Word. The process works as follows: (a) in Word, open your `.tex` file and let TeX2Word do the conversion; (b) run the `FormatTex2WordDocument` macro as described above to convert citations to a format that EndNote recognizes as "temporary citations"; (c) go to the EndNote toolbar within Word and run "Update Citations and Bibliography"; for each temporary citation, EndNote will present a dialog containing the matched references from the EndNote library; for each matched reference, click "Insert"; (d) after all citations have been resolved and EndNote has generated the References list at the end of the document, move the References list to the proper position if needed (i.e., when there are

appendices, tables, or figures). Unfortunately, this workaround does mean that duplicate databases will need to be maintained in both a `.bib` file and an EndNote library that contain common BibTEX keys for each reference. To work properly, one modification is necessary to the user preferences in EndNote: un-check the "Omit Author and/or Year from formatted citation if removed from temporary citation" option (in the "Formatting" section of EndNote preferences).

It's well worth experimenting with the 30-day trial of TeX2Word, and perhaps even worth finding—or borrowing—a Windows machine if you don't have one readily available (the conversion process does not require a TEX installation to be present).

7 Dependencies

apa6 automatically loads the following packages. If these packages are not already installed, producing the first apa6 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 everypage
- endfloat: handles placing tables and figures at the end of a manuscript; used only with the `man` option
- 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
- 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 `nolmodern`.
- 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 apa6 installation; specifically, Appendix B in that document) for how to set up a table with notes.
- times: for math definitions

8 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.

8.1 shortsample.tex

```
\documentclass[jou]{apa6}

\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{apa6} Package}

\author{Brian D. Beitzel}
\affiliation{SUNY Oneonta}

\leftheader{Beitzel}

\abstract{This demonstration paper uses the \textsf{apa6} \LaTeX\
  class to format the document in compliance with the 6th Edition of
  the American Psychological Assocation'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@{}}         \toprule
    Distribution type  & \multicolumn{2}{l}{Percentage of} & Total number   \\
                       & \multicolumn{2}{l}{targets with}  & of trials per  \\
                       & \multicolumn{2}{l}{segment in}    & participant    \\ \cmidrule(r){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}
    \begin{tablenotes}[para,flushleft]
        {\small
            \textit{Note.} 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{tablenotes}
  \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}
```

8.2 shortsample.pdf

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