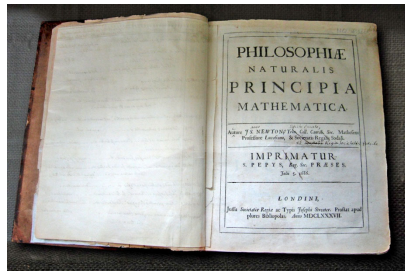


Common Latin Terms in Scientific Writing— *What They Mean When to Use 'em*



Newton's own first edition of *Philosophiæ Naturalis Principia Mathematica*, showing his handwritten corrections for the second edition.
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1

**“i.e.” (*id est*) means “that is”
or “in other words”**

**Use to define, restate, or paraphrase the
clause immediately preceding it**

**“The table includes only those costs
that fall under the NSF “Total Project
Cost” category; *i.e.*, it does not include
the significant contributions being
provided by all members of the
collaboration and the PSI laboratory.”**

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**“e.g.” (*exempli gratia*) means
“for example”**

**Use to give an illustrative example of the
thing just mentioned**

“This phenomenon may indicate trapped magnetic flux moving in the junction area or could indicate an intrinsic origin, such as domain wall motion between regions of different chiralities (**e.g.**, $p_x^+ ip_y$ and $p_x^- ip_y$).”

3

3

“viz.” (*videlicet*) means “namely”*

**Use to introduce specifically the items
comprised by a previously expressed whole**

“The noble gases, **viz.**, helium, neon, argon, krypton, xenon, and radon, are a group of six gaseous chemical elements constituting Group 18 of the periodic table.”

***Few writers use viz. nowadays, but now you
know what it means**

4

4

i.e. or e.g. or viz.?

To restate an idea in a slightly different way
and include *all* elements—use **i.e.**

To give a few representative examples of
something—use **e.g.**

To specify the constituent parts of a
previously named whole—use **viz.**

5

5

“vs.” (*versus*) means “against”

Use to contrast one thing against another

“The critical current modulation **vs.** applied
magnetic flux are shown for both
configurations for phase shifts of 0 (*s*-wave)
and π (*d*-wave).”

6

6

“etc.” (*et cetera*) means “and so forth”

Use sparingly; it is imprecise and usually adds nothing to the sentence

“Flooding was caused by several factors (e.g., low grade, cutbanks, high water table, ~~etc.~~”).”

“et” means “and” in Latin; writing “and etc.” makes you sound like an ignoramus*

**Lat. “we do not know”*

7

7

“et al.” (*et alii*) means “and others”

Use exclusively to denote additional authors in reference citations

“The work of Jones **et al.**¹ established the scaling law used to benchmark the present experiment.”

Note that “et” is *not* followed by a period, because it is not an abbreviation; “al.” is an abbreviation

8

8

“N.B.” (*nota bene*) means “note well”

Use to call attention to a point

“N.B. Stringent clean-room procedures must be employed to avoid contaminating the samples.”

**Unlike most abbreviations from Latin,
“N.B.” is always capitalized**

9

9

“cf.” (*conferre*) means “compare with”

**Use to point out similarities or differences
of the thing presently being discussed to
another example**

“The diffusive model of microwave propagation within a building makes very accurate predictions for the amount of power that is received at a given point (**cf.** experimental results reported by Ullmo and Garanger [3]).”

**Does *not* mean “refer to”—a common misuse
of the term**

10

10

“q.v.” (*quod vide*) means “which see”

Use to point to a reference or another example

“Strongly interacting or “correlated” electrons cannot be described as embedded in a static mean field generated by other electrons [1]. (For an earlier review of fermionic correlations, **q.v. *Rev. Mod. Phys.* 50, 99 [1984].)**

11

11

**Latin *abbreviations* (not “et”)
are always followed by a period (.)**

i.e.

e.g.

viz.

N.B.

cf.

et al.

q.v.

Common Latin abbreviations are not italicized in scientific writing

12

12

Latin words and phrases *are* usually italicized (as are any “foreign” words)

***in situ* = in its original place**

***in vivo* = occurring only in a living body, i.e., not under laboratory conditions**

***in vitro* = in an artificial environment outside a living body (literally, “in glass”)**

***ab initio* = from first principles; predictions or calculations based entirely on theory**

“Fig. 3. (a) Side and (b) top view schematic for a SET on SOI substrate utilizing self-ordered 2D dopant patterns fabricated *in situ* by STM.”

13

13

Commas and Latin terms

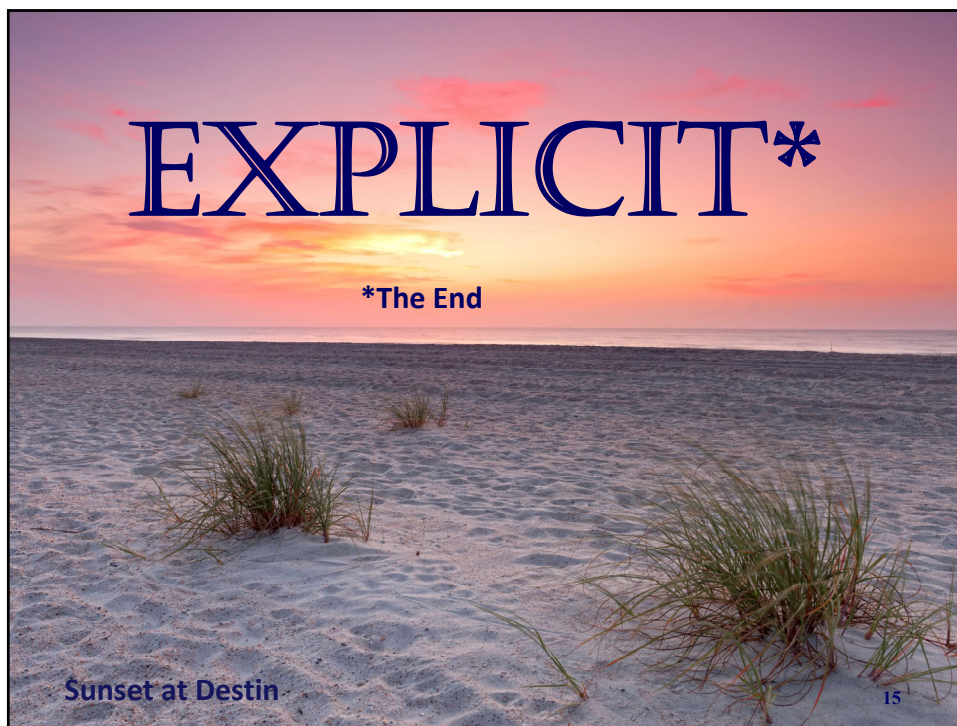
Set off etc., e.g., i.e., and viz. with preceding and following commas

“Formed by the breakup of meteors entering Earth’s atmosphere, the sodium atoms in the layer absorb and then re-emit some of the light, which appears to an earthbound telescope as an artificial magnitude 7 star (a factor of 100 weaker than, e.g., Polaris, a magnitude 3 star).”

Do not use commas after cf., et al., or q.v.

14

14



15