

Q: Just quickly read a bit about this Diceware; how is picking a few words myself different from using a dice and that diceware list? I'm probably missing something...

A: Well, in principal there's no difference, **if** you can guarantee that the words you pick are truly drawn **with no correlation between them**, and come from a wider pool than is typical of normal conversation.

Most people, when asked, will choose words that have a pattern between them that correlates to their default language (verb adjective noun, adjective noun verb, whatever). They'll also often pick words from a list in their heads of only a few hundred words. The Diceware lists are 6^5 (7776) words long, and when drawn randomly result in $(6^5)^4$ unique 4-word passphrases. This is almost two orders of magnitude greater than the number of 8-character passwords drawn from the ~90 usable characters (Unicode offers some new and interesting options here, but current support is inconsistent at best). So a four-word passphrase is roughly as secure as a 9-character random password.

If you draw from a list of correlated words, or a small list that encompasses a sort of quotidian, workaday language, this no longer works very well. In other words, the list of **valid** four-word phrases in any language is much, much smaller than the list of all four-word permutations in that language.

An interesting question is what to do if Diceware randomly gives you a perfect English sentence like, "this is a great password". I would tend to dump it and roll again, since removing the relatively small list of valid phrases has very little effect on the overall entropy, by definition.

[Here is a random diceware generator](#)

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Last update: **2017-04-21 11:15**

