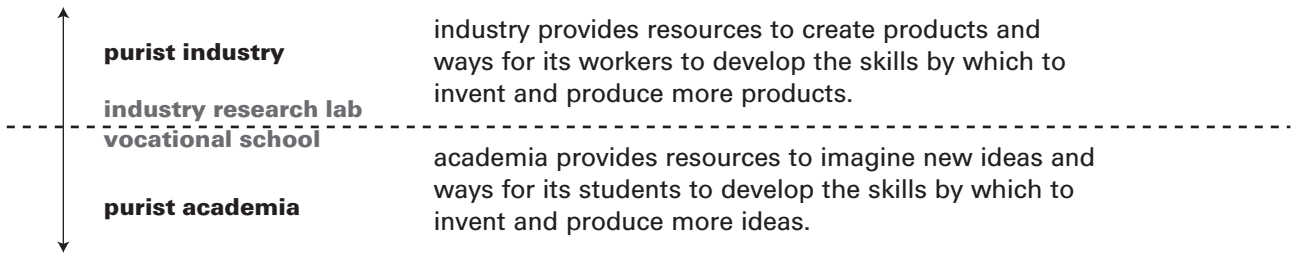


academia vs industry



research vs development

research involves the activity of testing an untested idea or hypothesis.

development involves the implementation of a known structure or idea.

depending upon the scale of ambition or labor:

- some development requires some research.
- some research requires some development.

faculty research and research assistants

a larger vision is targeted by a senior mind. to realize that vision, research assistants can find subresearch topics within the vision. however the percentage of research R versus the percentage of development D should follow the relationship $R \gg D$. in an applied field, the relationship will usually be something like $R \approx D$. often times due to poor faculty research management of a research assistant, situations like $D \approx R$ or $D \gg R$ are possible. such an assistant can become unhappy, after all they are called *research* assistants. in some cases an ra can come into a program extremely unskilled due to an admission misread or whatever other reason. in this case, the ra must be trained early on in development skills. thus for a time, there can be $D \approx R$ or $D \gg R$ where the supervisor should recognize when to increase the enskilled ra with more R .

urop doing research vs development

in either the case of a larger vision or subvision, people can become averse to development activity D . the belief is that this activity can always be farmed out to a junior intellectual community. in the case of faculty, it is research assistants. in the case of research assistants, it is urops. a urop by virtue of the 'R' in their acronym should have a relationship at least of $R \approx D$. however, some urops do not have the necessary level of skills. those urops will be better off doing more development $D \approx R$ and in the case of being extremely unskilled, $D \gg R$. Note that it is of paramount concern that the supervisor recognize when to graduate the urop to a higher percentage of R .

development for dollars

if there is a task at hand of purely developmental nature, then the development assistant should be paid proportionately more than the research assistant because the work is of a purely skilled nature.