[What do the top 10% of PhD students do during their research time?](https://www.quora.com/What-do-the-top-10-of-PhD-students-do-during-their-research-time%22%20%5Ct%20%22_blank)

The top PhDs understand communication is equally if not more important than the work.

Many of my lab mates were definitely top 10% PhD students and 2/6 who graduated in the same year time frame as I are now faculty at Berkeley and CMU.

The main thing top 10% students do is focus on outcomes, where the outcomes that matter are:

* High impact and high volume of publications
* Grant writing and conference speaking
* Fellowships
* Making connections in the relevant community

Essentially what this means is they are spending equal or more time *communicating their work as they are doing it.*

As you can see above, the outcomes are all actually communication based not work based per se.

It's like a bicycle, the back wheel is your work, without it you won't go anywhere, and the front wheel is communication - it really determines where you go and effectiveness of the path.

Now you can also leverage your time in the work output side in many ways so you can focus on communication with the following tactics:

* Collaborate with others for your projects and lean hard on them for their expertise
* Work with undergrads to increase your research output
* Automate your data collection
* Even as an experimental scientist - do some computation in parallel - scientists love math of any kind