

“Excellence in Teaching”

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“Good teachers are born, not made”

- True or False?

If you answered true, you believe a common but incorrect myth. The data don't support you. Excellence in teaching is not unlike excellence in piano playing in that there are specific things you can do which will make you a more effective teacher. We do not claim that you will necessarily become a virtuoso, but no matter how good you are now, you can get better. You are also likely to be pleased with what you can achieve with a small, well-targeted effort.

Most scientists know relatively little about the significant research in teaching and learning which has gone on since the 1930s, and many have opinions which are not data-based. This is strange, since we insist on experimental validation of our scientific work. It may be due to the nature of educational data, which is more difficult to interpret than most experiments in the physical sciences. Such data may present more ambiguities, it sometimes is based more on case studies than true “experiments.” We sometimes describe education as being more like medicine than physics, with a lot learned by trial and error and past experience. Like any other field, there is good research and bad. However, the best research tends to agree on basic factors which show up again and again as influencing good teaching, and these are what we will emphasize today.

Note that while we can identify these factors, there is no universal prescription for achieving them! We can't give you any formula or shortcut for acquiring them. We can and will give you suggestions of strategies which have worked well for others, and encourage you to mix them in a way comfortable for your own personality and interests. Just as students learn in a variety of ways, teaching (good teaching) can be done in many ways. The factors in common are:

Components of Effective Instruction

- **Enthusiasm**
- **Preparation and Organization**
- **Ability to Stimulate Student Thought and Interest**
- **Clarity**
- **Knowledge and love of the content**

Additionally, one can often do well by avoiding doing harm! Research indicates that certain teaching behaviors inhibit learning but nevertheless show up commonly in the classroom. The document “Six Common Ways to Discourage Learning” is designed to alert you to these and suggest ways to avoid them.