

What endures from school: extracts & commentaries

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Contents

Montaigne describes how students are to be taught to argue ...	2
Wisconsin student not impressed with the flipped classroom ...	3
On eliminating the university lecture, from Nabokov's Pnin, 1957 ...	4
Stanford University president compares American and German students, 1903 ...	7
Teach with enthusiasm and devotion ...	8
Examine your students properly ...	9
Higher talent required to explain broadly than to impart specialized knowledge ...	10
Student evaluations of teaching are of limited value ...	11
High-flying broad physics instruction not very useful ...	12
Reading seminars in Japanese education ...	14
What endures from school ...	16
Four benefits any teaching innovation must have ...	17
Teaching science like a foreign language ...	18
America's 19 th century middling standard for knowledge ...	19
University enrollment pressures of the 1930s and Kinsey's sexual revolution ...	20

Montaigne describes how students are to be taught to argue

“He should be trained to choose and sift his arguments with subtlety, also to be a lover of pertinence, and so of brevity. But above all, he should be taught to yield to the truth, and to lay down his arms as soon as he discovers it, whether it appear in his opponent’s argument, or to himself in his own second thoughts. For he will not be sitting in a professorial chair to repeat a set lecture. He will be pledged to no cause except in so far as he approves it; nor will he be of that profession in which the freedom to repent and think again is sold for good ready money. ‘No necessity compels him to defend all that is prescribed and enjoined.’”

– Montaigne. *Essays*. trans. J.M. Cohen. Middlesex, UK: Penguin, 1958.

Comment: Interesting to note that Montaigne (1533-1592) lumps professors in the shady lot of those that will never change their minds since they have “a set lecture” they must repeat. The quote at the end of this passage is from Cicero’s *Academica* II,3.

Wisconsin student not impressed with the flipped classroom

A student at University of Wisconsin weighs in on the “flipped classroom” in his school’s newspaper:

“The fact of the matter is that flipped lectures do not work. Video lectures alone cannot possibly replace traditional lectures because in order to create the most effective teaching environment, the professor must be able to have physical interactions with the student body as a whole. The professor must be able to read his audience while teaching the material, so that he can tell if his students are comprehending the information he is presenting. It is no question that the best professors are those who are able to sense a lack of understanding in his or her students, no matter the size of the class, and then make corrections to his or her teaching style as needed. When the professor is teaching to an inanimate camera instead of actual students, he or she essentially destroys the final step in the communication process: feedback.”

Phillip Michaelson, “Flipped Lectures: Do not pay thousands of dollars on glorified Khan Academy Lectures.” The Badger Herald, 13 March 2015 [link].

Comment: There is much discussion recently of fundamentally changing education from a traditional lecture by a professor to students watching videos and then asking questions later. This is the so called “flipped classroom”. Excellent students can do either model. Bad students do not succeed at either. It is the vast middle where the question is sharpest. Are flipped classrooms better? The jury is out. In time we will know. But one thing data seems to be saying now is that weaker students (but not “bad students”) may be at much higher risk for dropping out and not completing a course that has too much self-initiative required to watch videos and online material. The regimented and required time to meet of a traditional classroom may facilitate higher discipline and higher completion rates.

On eliminating the university lecture, from Nabokov's Pnin, 1957

Recently there has been much discussion about radically reforming university education. Many of these reforms advocate the elimination of the lecture. The Atlantic magazine profiled last August the upstart Minerva Project, which is a “university” predicated on no lectures. This is thought to be revolutionary and new to our times.

However, anybody who has been in the education business knows that these ideas and close variants of them have been talked about and tried and abandoned and tried again for many decades, if not centuries. My personal view is that social science researchers’ ability to quantify the value of a proper lecture may be severely lacking. But that discussion is for another time. Instead, what I wish to do is demonstrate how long-standing this debate is.

At the end of this post I give an early reference from 1957 of professors discussing the elimination of the lecture. It is written by Vladimir Nabokov in his novel Pnin. Nabokov of course is the famous writer of Lolita and other outstanding literary works. He also emigrated to the United States and taught at Wellesley College and Cornell for more than 18 years. Pnin is a semi-autobiographical account of a Russian emigré literature professor taking up a non-tenured teaching post in Waindell College in New York. Timofey Pnin is lonely, devoted to his scholarly work, frustrated with his lazy American students, and somewhat clueless about the political machinations around him. Toward the end of the book he throws the academic party of the decade at his college, only to be told after it by a colleague that he will be out of his job by the next year.

It is at this academic party that three university professors at Waindell college get into a discussion about their frustrations in educating students. Hagen ventures after a few drinks to tell his colleagues his view that the lecture should be eliminated. Instead “phonograph records” should be made available once and for all. Not too different than us saying today that a video should be made once and for all, and no more lecturing (“flipped classroom”). It degenerates into teasing hapless Timofey Pnin, the host of the party, by saying, “The world wants a machine not a Timofey.”

Clements is the voice of teaching orthodoxy and his style is to put his own strong words into someone else’s mouth (Tom) and to make jokes to lighten the discussion (“We could have Timofey televised”). He ends the discussion with a dismissive “sure, sure” when Tom protests and implies that there is something to Hagen’s ideas of eliminating the “old-fashioned lecture.”

Nabokov was surely familiar with such debates during his time as professor at Wellesley and Cornell in the 1940’s and 1950’s. It is the same debate we are having today, sixty years later. Whatever position you might have on this question, keep in mind that it is not a new debate, and there may be reasons why changes advocated by the Hagens of the world were not so quick coming.

Excerpt from chapter 6 of V. Nabokov's *Pnin*, 1957 (character descriptions given in brackets):

At a still later stage of the party, certain rearrangements had again taken place. In a corner of the davenport, bored Clements [philosophy professor] was flipping through an album of Flemish Masterpieces that Victor [son of Pnin's ex-wife] had been given by his mother and had left with Pnin [Timofey Pnin]. Joan [Clements's wife] sat on a footstool, at her husband's knee, a plate of grapes in the lap of her wide skirt, wondering when would it be time to go without hurting Timofey's feelings.

The others were listening to Hagen [German professor] discussing modern education:

"You may laugh," he said, casting a sharp glance at Clements—who shook his head, denying the charge, and then passed the album to Joan, pointing out something in it that had suddenly provoked his glee.

"You may laugh, but I affirm that the only way to escape from the morass—just a drop, Timofey: that will do—is to lock up the student in a soundproof cell and eliminate the lecture room."

"Yes, that's it," said Joan to her husband under her breath, handing the album back to him.

"I am glad you agree, Joan," continued Hagen. "However, I have been called an enfant terrible for expounding this theory, and perhaps you will not go on agreeing so easily when you hear me out. Phonograph records on every possible subject will be at the isolated student's disposal ..."

"But the personality of the lecturer," said Margaret Thayer [wife of English professor Roy Thayer]. "Surely that counts for something."

"It does not!" shouted Hagen. "That is the tragedy! Who, for example, wants him"—he pointed to radiant Pnin—"who wants his personality? Nobody! They will reject Timofey's wonderful personality without a quaver. The world wants a machine, not a Timofey."

"One could have Timofey televised," said Clements.

"Oh, I would love that," said Joan, beaming at her host, and Betty nodded vigorously. Pnin bowed deeply to them with an "I-am-disarmed" spreading of both hands.

"And what do you think of my controversial plan?" asked Hagen of Thomas [anthropology professor].

"I can tell you what Tom thinks," said Clements, still contemplating the same picture in the book that lay open on his knees. "Tom thinks that the best method of teaching anything is to rely on discussion in class, which means letting twenty young blockheads and two cocky

neurotics discuss for fifty minutes something that neither their teacher nor they know. Now, for the last three months," he went on, without any logical transition, "I have been looking for this picture, and here it is. The publisher of my new book on the Philosophy of Gesture wants a portrait of me, and Joan and I knew we had seen somewhere a stunning likeness by an Old Master but could not even recall his period. Well, here it is, here it is. The only retouching needed would be the addition of a sport shirt and the deletion of this warrior's hand."

"I must really protest," began Thomas.

Clements passed the open book to Margaret Thayer, and she burst out laughing.

"I must protest, Laurence [Clements]," said Tom. "A relaxed discussion in an atmosphere of broad generalizations is a more realistic approach to education than the old-fashioned formal lecture."

"Sure, sure," said Clements.

Stanford University president compares American and German students, 1903

Having spent a lot of time at German universities and American universities, I was amused by a passage written in 1903 by Stanford University's first President David Starr Jordan. Qualitatively I think some of what he said in 1903 applies today, although he was surely much too harsh on the German boys. It smacks of resentment that he really thought German boys were better than ours, and he tried hard to find reasons why we might be better, even though as a University president I'm sure he wished Americans were more academically inclined.

Also, I wonder if in 1903 it was the same as today, that American students and American education has a significantly higher variance than students and education in Germany. This is widely recognized today, but Jordan doesn't mention that. I suspect that it was the case back then also – think Little House on the Prairie schoolhouses versus fancy New England Prep Schools. And the quip about American westerners being more broadly knowledgeable about practical things of the world still holds true today I think. In my extended family, Western Americans can change plumbing, build a deck, and replace a muffler, but Easterners have to call somebody when the refrigerator light goes out.

Here's the passage:

"It is true that in the gymnasium [academic track German preparatory high school] students get on faster than in our high schools and preparatory schools. The German student is as far along in his studies at sixteen as the American at eighteen. This is due to the fact that American life makes more outside demands on boys than life in Germany does. The American boy is farther along in self-reliance and in knowledge of the world at sixteen than the German at twenty. The American college freshman, especially if brought up in the West, knows a thousand things, outside of his books and more useful, because more true than most of what his books contain. He can ride, drive, swim, row, hunt, take care of horses, play games, run an engine, or attend to some form of business, while the German boy cannot even black his own shoes" (Jordan 1903).

Reference

David Starr Jordan. *The voice of the scholar, with other addresses on the problems of higher education*. San Francisco: Paul Elder & Co, 1903.

Teach with enthusiasm and devotion

Some interesting advice on teaching from former president of Swarthmore College:

“Be sure you have in your faculty teachers of enthusiasm, energy, devotion to their calling, well trained in a knowledge of the subjects which they teach, who by example as well as precept instill lessons of continuous and fruitful work. If the teacher is half-hearted, dry and uninteresting, if he is not himself a student and a hard worker, there is little inspiration from such a teacher for effort on the part of the student. On the other hand, if the teacher never forgets the point of view of the learner, by always being himself a learner, has the vigor which comes from constant growth, and is as much interested in the development of intellect and character in young people as the botanist is in the growth of the plant, the teacher will place about the student the conditions for effort and offer an incentive to hard work.” (p.43)

“If the teacher is himself methodical and lays out the work of the student in such a way that he feels strongly that he has a definite piece of work to do today and he knows that he will be very definitely tested tomorrow by his teacher before the students on this work in the class room, an otherwise indolent student will be spurred to work.” (p.44)

Reference

Joseph Swain (President of Swarthmore College). “Methods of correcting or eliminating idle or unprofitable university students.” *Transactions and Proceedings of the National Association of State Universities*, 1903.

Examine your students properly

Admonition about the importance of exams for students given by former president of University of Nebraska:

“Apathy about examinations is a crying evil. Some institutions only quiz, and do not, properly speaking, examine at all, neglecting a vitally precious mental discipline, that of acquiring master over subjects as wholes, and over parts in their relations to each other and to the totals. The examination of a pupil upon a large unit of his work is of advantage not merely as criterion of his diligence or proficiency, though it may and should be this; it is a pedagogical process of indescribable value, not to be omitted without cruelty to the pupil.” (p.26)

Reference

Chancellor E. Benjamin Andrews (University of Nebraska). “Current Criticism of Universities. *Transactions and Proceedings of the National Association of State Universities*, 1905.

Higher talent required to explain broadly than to impart specialized knowledge

Former president of University of Nebraska talks about the skills needed to explain a topic broadly without specialized jargon.

“American universities present few courses of this most useful order. Learned men often seem to think it beneath them to construct general courses, a whim which Lombroso might cite as another proof that genius and insanity are twins. With all respect for microscopic specializing, earnestly to be encouraged in every way, I so far risk my life as to say that it takes higher talent to frame a good course on the salient facts and laws of biology as a whole, than it does to frame a good course on the possible significance of a suspected new convolution in the superior anterior lobe in the brain of a rare species of butterfly.” (p.29)

Reference

Chancellor E. Benjamin Andrews (Univ of Nebraska). “Current Criticism of Universities.” *Transactions and Proceedings of the National Association of State Universities*, 1905.

Student evaluations of teaching are of limited value

Here are Stark & Freishtat's conclusions that call into question the value of student evaluations of teaching (SET):

“SET does not measure teaching effectiveness.”

“Controlled, randomized experiments find that SET ratings are negatively associated with direct measures of effectiveness. SET seem to be influenced by the gender, ethnicity, and attractiveness of the instructor.”

“Summary items such as ‘overall effectiveness’ seem most influenced by 20 irrelevant factors.”

“Student comments contain valuable information about students’ experiences.”

“Survey response rates matter. Low response rates make it impossible to generalize reliably from the respondents to the whole class.”

“It is practical and valuable to have faculty observe each other’s classes.”

“It is practical and valuable to create and review teaching portfolios.”

“Teaching is unlikely to improve without serious, regular attention.”

Reference

P.B. Stark, R. Freishtat. “An Evaluation of Course Evaluations.” September 26, 2014.
<http://www.stat.berkeley.edu/~stark/Preprints/evaluations14.pdf>

High-flying broad physics instruction not very useful

Max Planck, the originator of quantum theory and one of the greatest physicists of the 20th century, was also a philosopher and essayist. One of Planck's more interesting essays was "Scientific Ideas: Their Origin and Effects" (Planck 1938). The purpose of that essay was to describe "how a scientific idea arises and what are its characteristics" (p.88). The essay develops his thesis that ideas are based on concrete experiences that are compared and then links are forged between the old and new and the "idea becomes fruitful ... if the interconnection thus established can be applied more generally to a series of cognate facts" (p.89). The essay then argues that his theory of scientific ideas matches historical examples, such as Newton's theory of mechanics and Clausius's thermodynamics.

However, in my view the essay's value is less connected to his main goal of developing the theory of ideas described above, which is not terribly unique or helpful in my view. Rather, more interesting is his various digressions, from the perspective of a world-class physicist, that are connected to the development of ideas. One of his most impassioned digressions is on education. Developing great ideas requires individuals who can do it, and that requires that they be educated properly.

Max Planck has strong opinions about how to educate students properly in school that would yield productive scientists. This is what he had to say:

"What is learned at school is not as important as how it is learned. A single mathematical proposition which is really understood by a scholar is of greater value than ten formulae which he has learned by heart and even knows how to apply, without, however, having grasped their real meaning. The function of a school is not so much to teach a business-like routine as to inculcate logical and methodical thought. ... Hence the first requisite, if good work is to be done, is a thorough elementary training; and here it is not so much the quantity of facts learned as the manner of treatment that matters." (Planck 1936, p.98)

I can't agree more with Planck. We have all seen the student who is focused on memorizing equations, knowing how to do many key simple examples mechanically, but who has no strong critical approach to his or her knowledge. A deep understanding is not there.

In addition, Planck is saying something beyond criticizing the superficial learning approach of some students. He is also criticizing teaching that emphasizes breadth over depth. From Summer Schools to Master's programs to individual courses, there is a strong tendency for faculty to fly high and cover too much material in the allotted time rather than delve into less material more deeply and proceed thoroughly. The temptation is very strong to do this for several reasons. First, when you cover material very deeply, there will always be a group of students who do not catch the vision of how important it is to really thoroughly crush the material, leaving no stone unturned, leaving no assumption unexposed, and leaving no calculation ambiguous. They exude impatience at what they see as pedantry. This is difficult for

students, not to mention faculty, who may feel that they are boring their students. Or, as is often the case, the faculty may also not have the fortitude, desire or ability to really get to the very bottom of the material themselves and would rather fly higher and imply that they would tell more if they had the time.

Another drawback of covering things deeply is that it means you must sacrifice other topics. If you can cover ten topics without too much depth or four topics in great depth, students and faculty both find it more satisfying to hear about all those ten things than beat four things into the ground. But Planck says no, you need to beat things into the ground to produce real scientists. Only then will they have the example and training to get to the bottom of their own research when the time comes. They must be led to develop the ability to pursue ideas to their very core, thoroughly understand them, and construct new ideas from the depth of understanding. Only then does a scientist have a chance to have and develop a profound insight and make a breakthrough.

Reference

Planck, Max (1938). *The Philosophy of Physics*. New York: W.W. Norton & Co. (Norton Library Reprint ed., 1963.)

Reading seminars in Japanese education

It is well known that the Japanese university system produces some of the most impressive theoretical physicists and mathematicians in the world. When encountering success it is interesting to note how they go about their business. There are many similarities between the Japanese educational system and the American educational system, but there are at least two very substantive differences noticed while on a recent visit to Nagoya University.

First, the Japanese physics student learns much more physics and mathematics as an undergraduate than the typical American university student. While Americans are half-filling their schedules with general education course requirements, such as History of Jazz and The 19th Century Epistolary Novel, Japanese students are learning more physics and math. There are pluses and minuses to the American system, but it must be recognized that American students are often far behind just about everyone in the world in their major studies upon undergraduate graduation.

The second difference is the prevalence of “reading seminars” in Japanese university education. These are offered for Japanese advanced undergraduate students and graduate students.

In any given semester a student is formally a member of one reading seminar supervised by a faculty member, and the student is usually also a member of extra informally organized seminars with other students and maybe even faculty. Each seminar typically meets once a week for about 3.5 hours (1-4:30pm appears to be popular). There is a text that everyone is supposed to have read thoroughly and understood as best as possible before meeting. It may be a textbook or a research paper/review.

The seminar is conducted by asking a student to go to the board and lead the group in covering the material. In some reading seminars the instructor will randomly select a student — making all students feel the pressure to read and study well before they come to every class. In other reading seminars a student or several students are assigned beforehand to be lead presenters. They work through the text, asking many questions, and making sure everyone knows the material extremely well. The reading seminars are formed with students at roughly similar levels of background and interests. Wildly disparate background preparation and interests lead to less effective reading seminars.

It is my understanding that these reading seminars are considered by students and faculty to be where some of the most effective learning takes place at the university. The obvious benefits of these groups are partly what causes the students to organize themselves into additional reading seminars informally to learn material of most interest to them. In addition, the university recognizes the importance of these seminars and gives faculty teaching credit for supervising one during the term.

It looks like a fun and effective approach to teaching and learning. Many places in the U.S. have informal journal clubs that operate somewhat similarly, but few if any places employ such systematic and intensive use of this approach to learning as is done in Japan. From the successes encountered in Japan, perhaps reading seminars would be good to implement in a more extensive way at American universities.

What endures from school

“In just two years of intensive German study, I achieved a high level of linguistic competence and confidence. There was nothing mysterious about Joe's teaching methods. We learned by spending hours every day on grammar, vocabulary, and style, in the classroom and at home. There were daily tests of memory, reasoning, and comprehension. Mistakes were ruthlessly punished. ... There was no praise, no warm fuzzy familiarity or softening of the critical blow.... It seems to me significant that in all my unpleasant memories of school, the one unambiguous positive is the two years I spent having the German language driven mercilessly into me. I don't think I am a masochist. If I recall 'Joe' Craddock with such affection and appreciation, it is not just because he put the fear of God in me or had me parsing German sentences at 1 AM lest I be dismissed the next day as 'absolute rubbish!' It's because he was the best teacher I ever had; and being well taught is the only thing worth remembering from school.” (p.87-89)

From Tony Judt. *Memory Chalet*. Penguin Press 2010.

Comment: When you are young and you just want to play sports or spend time with your friends, teachers like Joe Craddock get in the way. However, when you are older you will find that you will feel you have been cheated by “cool” teachers who just messed around and gave you A's. You didn't learn, and the trajectory of professional and education success in your life is altered and lowered. As Tony Judt says, slightly exaggerated, “being well taught is the only thing worth remembering from school.”

Four benefits any teaching innovation should have

According to Robert Wilson, as quoted below in Light (2001), these are the four benefits that any teaching innovation should have

1. It requires more active listening from students.
2. It helps instructors identify students who need special help or who lack adequate preparation for the course. In the best case it helps students identify for themselves how they are doing.
3. It improves and focuses students' writing. Responses during the last weeks of class are longer and more thoughtful and articulate than those during the early weeks.
4. It helps document for students that they are indeed learning something substantial in the course.

Comment: These are great ideas. However, it should be noted that such aspects of a course are very expensive. A professor who is teaching a hundred students at a time simply cannot implement these kinds of innovations without eliminated food and sleep, much less research, which is so critical for the professor staying sharp in their field.

Reference

Richard J. Light. *Making the most of college : students speak their minds.*" Harvard University Press, 2001.

Teaching science like a foreign language

One of the most substantial educational experiences a student has is when learning a foreign language. The student often goes in knowing essentially nothing, and after a year or so can have reasonable conversation. The student recognizes readily that knowledge was achieved. The student also recognizes that without effort nothing happens. You cannot fake it when learning Korean.

Language classes have long been recognized as ideal structures for learning. As Light (2001) says, they have 1) small class sizes, 2) instructors insist on full participation, 3) students work in small groups outside of class, 4) classes demand regular written assignments, and 5) frequent quizzes give students constant feedback. Because it is impossible to fake learning in a foreign language, instruction cannot skimp out on any of these aspects. A university that wants their students to learn another language cannot make an auditorium of 250 students listening to the professor sing “aus ausser bei mit, nach seit von zu!”. Classes must be small, interaction large, and constant assessment and feedback.

There is something to learn in science classes along these lines. If we implement in a science class all five of the criteria stated by Light above, the efficacy of science teaching would surely increase.

For example, research has shown quite convincingly (Light 2001) that students who are engaged in small group learning, inside or outside of class, not only learn more but also have a richer and more rewarding college experience.

Furthermore, frequent feedback through quizzes and homework evaluation is key to learning. Not only is the student required to be engaged with the material at regular times by having such assignments, they are also obtaining the needed feedback to assess their own progress. A single big example at the end of a semester and no other evaluation keeps students too much in the dark about their own progress, and also negatively impacts engagement early on in the term.

Reference

Richard J. Light. *Making the most of college : students speak their minds.* Harvard University Press, 2001.

America's 19th century middling standard for knowledge

The Frenchman Alexis de Tocqueville visited America in the early 1800s and wrote up what he learned in his famous book *Democracy in America*. This is what he wrote about American professions, including a swipe at the quality of American science:

“In America, there are but few wealthy persons; nearly all Americans have to take a profession. Now, every profession requires an apprenticeship. The Americans can devote to general education only the early years of life. At fifteen, they enter upon their calling, and thus their education generally ends at the age when ours begins. Whatever is done afterwards is with a view to some...object; a science is taken up as a matter of business, and the only branch of it which is attended to is such as admits of an intermediate practical application.... A middling standard is fixed in America for human knowledge.”

From Alexis de Tocqueville. *Democracy in America*. 1835-40.

Comment: America was too practical and too poor in the 1700s and 1800s to have much of a vibrant intellectual atmosphere. The exceptions were rare and extraordinary individuals, such as Benjamin Franklin. There is always a risk even today to abandon deeper inquirer into sciences and only focus on work with “an intermediate practical application”. But no society stays strong when they cannot muster the interest for deeper thought and curiosity. Strong intellectual pursuits are correlated with societal wealth and health, and America did exactly that around the turn of the 20th century, rising to great heights.

University enrollment pressures of the 1930s and Kinsey's sexual revolution

America in the 1920s was one of the most fascinating times in our history, as we transitioned so rapidly from a backwards country to an intellectual, cultural and economic powerhouse. It was a time where freedom of individual expression was flowering, and cultivation of the individual mind was starting to be valued. It is no wonder to me that some of the first greatest physics results from America came in the 1920s. I think of the Davisson-Germer experiment published in 1927 (Davisson & Germer 1927) as one of the key scientific discoveries that roughly marks the beginning of top-flight American physics research. This particular result established for the first time that electrons act like waves, and was central to the development of quantum mechanics.

This rapid rise of the American higher educational landscape started in the 1920s. Many more students were graduating from high school than ever before (Kyvig 2001). This put tremendous pressure to expand universities, increase enrollments, and hire more faculty:

“By 1940, half of all eighteen year olds [obtained] a high school diploma, triple the percentage who had done so merely twenty years earlier. The increase in high school graduates together with the growing demand for better-educated teachers helped stimulate a significant rise in college attendance during the 1920s and 1930s. The overall enrollment grew from 600,000 to 1.5 million. Most of the enrollment growth involved middle-class students attending non elite public universities in the Midwest and elsewhere” (Kyvig:2001).

The schools in the Midwest were much larger than the east coast “elite” schools, and they also were co-educational, a somewhat new development in the country, as least regarding the magnitude of coeducational instruction.

“Like secondary schools, colleges and universities underwent curricular reform and expansion in the years between the world wars. As the number of faculty tripled, the variety of courses increased proportionally. Courses and programs in business, engineering, fine arts, and education and new approaches to the study of human society such as anthropology, political science, and sociology were added to the traditional arts and sciences, medicine, law, and theology. Courses [were] designed to prepare students for the ordinary routines of everyday life, gradually becoming as straightforward and frank as the popular Indiana University course on marriage begun by Professor Alfred Kinsey in 1938, also entered the catalogue” (Kyvig 2001).

I found it interesting that the big, practical courses that universities so often have now for younger students (freshmen and sophomores) were initiated during the grand expansion of the university curricula in the 1930s. I also did not know that Alfred Kinsey, who is most famous for his scholarly, yet bestselling, 1948 book “Sexual Behavior in the Human Male,” was one of the leading “star professors” to develop a large enrollment course at Indiana University, as part of this new national trend.

Kinsey did not exactly stumble upon this role. He was led to it by a set of negative events outside of his control that he responded to positively:

“Kinsey was deeply disappointed that he was not offered a professorship at a more prestigious university. Perhaps because of this disappointment, Kinsey made an unusual career move in 1938: he agreed to lead a team-taught course on marriage and the family instituted in response to a student petition. High points of the course were Kinsey’s illustrated lectures on the biology of sexual stimulation, the mechanics of intercourse, and the techniques of contraception, as were his spirited denunciations of repressive laws and social attitudes. The Indiana students responded enthusiastically, and his course enrollments grew to 400 by 1940” (Brown & Lee 2003).

At the time he was initiating this course, and seeing the tremendous interest of the students in such “practical things” he shifted his research interest just as dramatically. As Brown and Fee tell us, “Kinsey now shifted his research focus as well, transferring his obsessive concern with variation among gall wasps to the varieties of human sexual experience. He required students in his marriage course to have private conferences in which he took their sexual histories. On weekends and vacations, he conducted similar interviews in nearby communities, and later in such cities as Gary, Chicago, St. Louis, and Philadelphia. In January 1948 [ten years after his course began], Kinsey and his collaborators published *Sexual Behavior in the Human Male*” (Brown & Lee 2003).

Kinsey's highly recognized research leads Brown and Fee, and most others, to conclude that he was “one of the most influential Americans of the 20th century” who “helped usher in the ‘sexual revolution’ of the 1960s and 1970s” (Brown & Lee 2003). Thus, it appears that the enrollment pressures at universities in the 1930s, combined with Kinsey’s frustrated ego, made it attractive and possible for Kinsey to start his new career in frank sexual teaching and research, which ultimately influenced so many through his blockbuster selling books of the late 1940s and 50s, helping facilitate the rise of the sexual revolution decades later.

References

C. Davisson, L.H. Germer (1927). “Diffraction of Electrons by a Crystal of Nickel.” *Physical Review* 30, 705.

David E. Kyvig (2001). *Daily Life in the United States, 1920-1939*. Westport: Greenwood Press.

T.M. Brown, E. Fee (2003). “Alfred C. Kinsey: A Pioneer of Sex Research.” *Am J Public Health* 93, 896.