

The Dutch Mix: the international university college

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1. In the coming minutes I'd like to give you an account of a recent development within Dutch Higher Education, a development that started in the late 90's of the previous century. It is the type of innovation that is drastically resetting the quality standards for teaching and learning in (Dutch) universities. I am talking about the so-called 'university colleges', international and academic undergraduate institutions (the bachelor stage) that thoroughly prepare motivated students for the better professional graduate programs in the world. University Colleges constitute, in fact, a double innovation: not only do they represent a major innovation in the structure of Dutch Higher Education, they also educate their students into creative and innovative citizens for the 21st century.

2. A university college is a mix of three important versions of undergraduate university education, concerning program, scale and pedagogy. Together these three elements form the backbone of the European heritage in education, although we sometimes seem to have forgotten about them.
 - As far as the *program* is concerned the main reference is to the original – Aristotelian - liberal arts & sciences format that still forms the undergraduate program of the better American universities and colleges.
 - With respect to *scale and size* a university college looks like the 40 colleges of Oxford University and the 30 colleges of Cambridge University. The name 'university college' was taken after the first Oxford college, founded in 1249.
 - And as far as the *pedagogy* is concerned university colleges refer to the Humboldtian Bildung tradition in which two elements stand out: the connection of *teaching and research* and the importance of a student's free choice.

I'll discuss these three elements of the Dutch mix (program, size and pedagogy) separately and I will also indicate the main problems that had to be solved in order for our university colleges to get accepted by the established universities as an interesting and valuable form of undergraduate university education. I finally talk about the spin-off that this innovation has generated in my country as well as abroad.

3. Let me start with the program, the first element of the Dutch Mix:
 - Liberal arts education is a system of undergraduate higher education that is nurturing the students' ambition to learn and to become a responsible and knowledgeable citizen. In that sense

it has a cognitive as well as a moral ambition. It is a system that teaches students how to acquire new and valid knowledge, to help them think critically, to make them adequately report and communicate about their results in speaking and writing, and also to prepare them to become responsible and independently thinking citizens. It does so by offering a broad academic curriculum that covers all basic academic disciplines (the so-called *artes liberales*). From all the courses that are on offer students are asked to build their own individual study path, observing, of course, a set of choice rules that guarantee both breadth and depth. The term 'artes liberales' has always included the sciences as well, but to avoid the often heard, mainly European, misunderstanding that links the term exclusively to the humanities, we usually speak about 'liberal arts and sciences', which is - admittedly - a pleonasm.

- Liberal arts education is a truly *academic*, not a vocational type of education. In that sense it is different from contemporary European and Asian models of higher education in which students are often, right from the start, led into professional studies. Next to its academic orientation, which is in itself of great value, the liberal arts model has two additional advantages: on the one hand it provides students with the academic and multidisciplinary base for a top-notch professional program in the graduate school (e.g. law school, medical school, government school, business school, engineering school, as well as the graduate school of liberal arts & sciences); and at the same time it frees students from having to make a premature and ill-considered choice at the young age of 17 or 18. Thanks to the liberal arts setting students may enter college or university without being too specific or too sure about the direction they want to major in. The liberal arts curriculum gives them the opportunity to gradually zoom in on the major or concentration they have affinity with.
- There is, of course, a lot more to say about the specifics of the liberal arts model compared to what we were used to, but I may reserve this for the discussion.

4. Size or scale form the second cornerstone of university colleges

- From the Oxbridge colleges we borrowed a truly collegiate system in which university colleges shouldn't be bigger than, say, 600 students. That size makes it possible for students to get to know each other very rapidly and learn from the variety of their perspectives. The educational power of having students with a variety of interests (and majors) and also with a variety of cultural backgrounds (most colleges have students from 50-60 different nationalities) is great. Among the students of such a small college positive feelings of pride, belonging and responsibility can easily be built up. Feelings of pride, belonging and

responsibility won't come into being unless students and faculty can look each other in the eye.

- We arranged for classes to have a maximum number of 25 students, which means that many courses, particularly the ones at the 100- and 200-level, need to be taught more than once per semester or per year. Anyhow, the intensity of the interaction in these small classrooms is much more productive than in mass lectures; students are asked to write papers on which feedback is given and which are discussed in class; they are asked to give presentations, to defend their findings and opinions publicly. Everything is done to engage in more proactive forms of teaching and learning. And all these activities count in a system of continuous assessment, so that students know exactly where they stand as they proceed. Students do 4 courses per semester, 8 per year in a three-year program. The study load per course is 210 hours. A semester is 15 weeks including exams.
- In some cases it was possible to attach faculty members exclusively to the college, so that they also became members of the academic community. The number of faculty fte's for a university college of 600 students was set at 42. Together these 42 fte's teach 210 courses or, better, course equivalents, per year. They also perform 42 tutor tasks, in which each of them supervises 14-15 students throughout the entire 3-year program. And next to its faculty a university college is supposed to have an administrative staff of about 10 fte.

5. The pedagogy is the third essential element of our university college concept. Some important aspects of its pedagogy were already included in what was mentioned about the program and the size of the college. For example, in a liberal arts setting students are made responsible for their own program, their own study path (be it within a set of constraints), which has the positive effect of making clear that they are treated as professionals themselves. And limiting class size to a maximum of 25 certainly helps to make the teaching and learning process more interactive than in a traditional lecture setting. Students explicitly learn from each other, not only because they come from different cultural backgrounds and have completely different mindsets, but also because they may have different majors or different concentrations within their majors. Another crucial pedagogical element is the focus on academic skills, such as how to think critically, how to properly collect data, how to properly come to conclusions, how to organize objections, how to present conclusions in writing or speaking.

But there is one single element in the pedagogy of the Dutch Mix that deserves special mention: the *undergraduate research* focus. It is, in fact, a contemporary interpretation of Von Humboldt's emphasis on the connection of teaching and research. In most universities this teaching/research connection has gotten a very specific meaning: "unless teachers are engaged in research projects they won't be any good in teaching either."

And, of course, that may be true, but the immediate consequence has often been that university teachers have shifted their focus from teaching to research, which is, in fact, a form of goal displacement similar to the shift bankers have made from clients to bonuses. In our university colleges the mantra of teaching & research was given a different twist, more in line with what Von Humboldt must have had in mind: students and teachers engage in so-called undergraduate research projects. These projects may have a more regional and/or practical focus, they may be elements in a research line of a particular teacher or department, or, as is often the case, may be very original student-driven additions to such a research line. Undergraduate research may help the student to acquire new knowledge and understand how research is properly done, but at the same time it serves the teacher in his or her own research and publication interest.

6. So far so good. But in introducing the Dutch Mix into our system of Higher Education we were confronted with many hurdles, objections and resistance. Changes in higher education need a Creutzfeldt-Jakob kind of incubation period, it seems. I name a few of these hurdles, and I again divide them over the three elements of the Dutch Mix:
 - the *liberal arts* setting was confronted with the almost paradigmatic character of the *studierichting*, the fixed program; it was often accused of providing students with an 'anything goes'-program, which particularly in times of economic crisis wouldn't help students to get a decent job. Moreover, some faculty seemed to be afraid of having to compete in a market setting in which students may pick courses and teachers they have affinity with. And on top of that: spending so much time to teaching would drastically lower the faculty member's research output. So skepticism reigned as we had only 'promises' and not much 'evidence' in the first couple of years. But after four or five years even the most skeptical faculty had to admit that graduates from university colleges were among the very best candidates not only for master and Ph.D.-programs all over the world, but also for employers who needed academics who could think, write and present. Moreover, the enthusiasm of faculty members who taught at university colleges spread rapidly over the university as a whole making it a privilege to be invited to teach there
 - the college setting, i.e. the *small size*, also met with objections, particularly related to costs. Of course, everyone would agree that small classes improve the quality of teaching and learning, but in line with traditional industrial logic, the lack of standardized teaching must raise costs, they thought. Being stuck in the paradigm of fixed programs or *studierichtingen*, they never realized that having – e.g. in my own university in Utrecht – 44 separate bachelor programs may be more costly than, say, 30 colleges for the same number of 18.000 students... And outside of the realm of costs and cost-efficiency: in a college setting

with small classes, teachers can no longer hide behind prefabricated lectures or chapters of books that could have been read by the students themselves. They really need to be in full charge of the material, so that they may invite students to find out for themselves. In other words: teachers have to become teachers again.

- and then, of course, there was the complaint that the intensity of the teaching process would minimize the teacher's chance to engage in serious *research*. It is true that full time teachers at university colleges spend 1200 hours per academic year to teaching and learning, and that in the two times 15 weeks of the semesters the work load is considerable and does not leave much room for one's own research (outside, of course, the undergraduate research projects). But it is also true that even in these circumstances there are still 4 full months available for one's own research projects, and that, if needed, a reduction of teaching obligations can be 'bought' by acquiring grants from e.g. the National Science Foundation. Part of the grant money can then be spent on qualified replacements. But all this doesn't take away that teaching at a university college requires a special kind of teacher: teachers who understand that the chance that one of their students will win the Nobel Prize is much bigger than that they themselves will end up as Nobel laureates. University Colleges need teachers whose pride lies in the career of their students.

7. The spin-off

Notwithstanding these hurdles, objections and apprehensions, introducing the university college concept into the Dutch system of Higher Education has had a variety of positive consequences. I'll name a few and leave the rest to the discussion:

- After the first college was founded in 1998 almost all universities in the country have built such a university college, mostly as a kind of honor's college for students whose academic ambition and potential are above average.
- Dutch government decided in 2008 to grant a substantial amount of money – next to its regular funding – to the Sirius organization, of which I serve as president, to be used for the improvement of university education across the board.
- Although the intensity of the program and the demands asked from students and teachers are way beyond universities were used to, graduation rates in these colleges skyrocketed up to 90-95 percent and drop out rates fell down to a bare minimum of 5 percent.
- The vast majority of graduates of these university colleges are seen as excellent candidates for the better master and Ph.D. programs throughout the academic world and they consequently spread over the continents. Of the Dutch students in these colleges over 50 percent go abroad and of the interna-

tional students more than 50 percent stay in the Netherlands for their master programs

- There has also been quite some interest from abroad. The University of Freiburg in Germany established a university college and at the official opening of the college the university's rector was so enthusiastic about the concept that he was playing with the idea to turn his entire university into a 'collegiate' institution. Universities from China have visited various of our Dutch colleges and I myself was fortunate enough to assist in the establishment of a university college in Chongqing and one in Shanxi. I am currently involved in a university college initiative in Indonesia (more specifically Sumatra), and one in Bruges in Belgium. Last October we organized – on behalf of ECOLAS (European Colleges of Liberal Arts & Sciences) a conference on liberal arts and university colleges in Brussels. So the concept of university college is now rapidly taking root, and it does so for a very specific reason: the need for more creativity, out-of-the-box-thinking and entrepreneurship among generation 2.0
8. To conclude: it is my firm belief that unless universities go 'collegiate', they will have trouble to survive.