SATIS

Menschen für Tierrechte
Bundesverband der Tierversuchsgegner e.V.

A survey on the use of animals in education and training in human medicine, veterinary medicine and biology

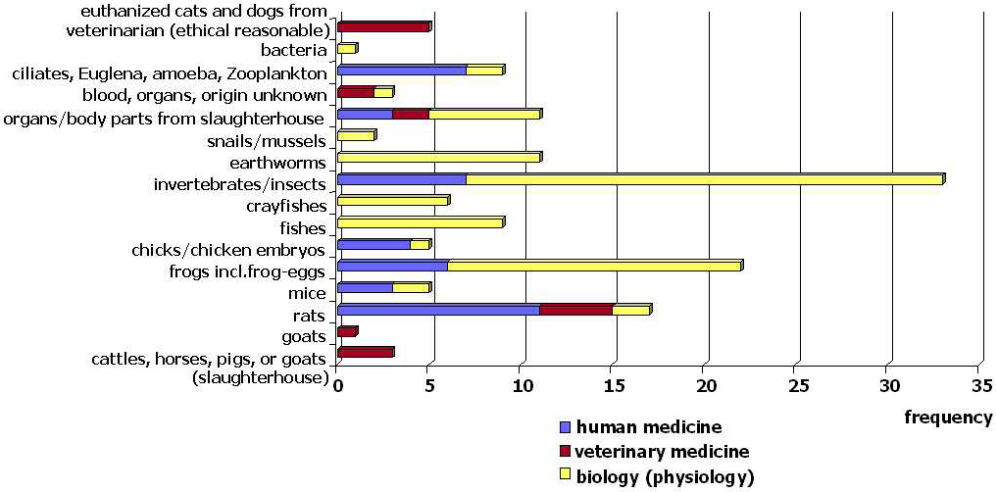
Between March and July a German wide telephone survey was carried out. Thirty-five faculties of human medicine, five faculties of veterinary medicine and sixty-six faculties of biology were asked about their use of live or dead animals in their courses. Additionally the course leaders were asked if they work with animals or non-animal methods e.g. simulation programs, video films, permanent slides or models which replace animal-based methods.

Our goal is to put an end to animal use by promoting the use of alternative methods and by convincing the decision makers. For this purpose course leaders, course planners or responsible members of staff were interviewed whether they apply live or dead animals, cells or enzymes from dead animals. In case of using dead animals, we asked whether the animals had died a natural death or if they had been euthanized at veterinary clinics (ethical animal use). The survey gives an overview about the different practices. It is restricted to Bachelor respectively basic studies.

The survey updates the results of an earlier survey done in 1995 and from selective updates, which had been published on the "SATIS"-website between 1997 and 2007 (www.satis-tierrechte.de).

Frequency of used animals at German Universities in the study courses human medicine, veterinary medicine, biology (physiology) basic study/bachelor

Spring 2010



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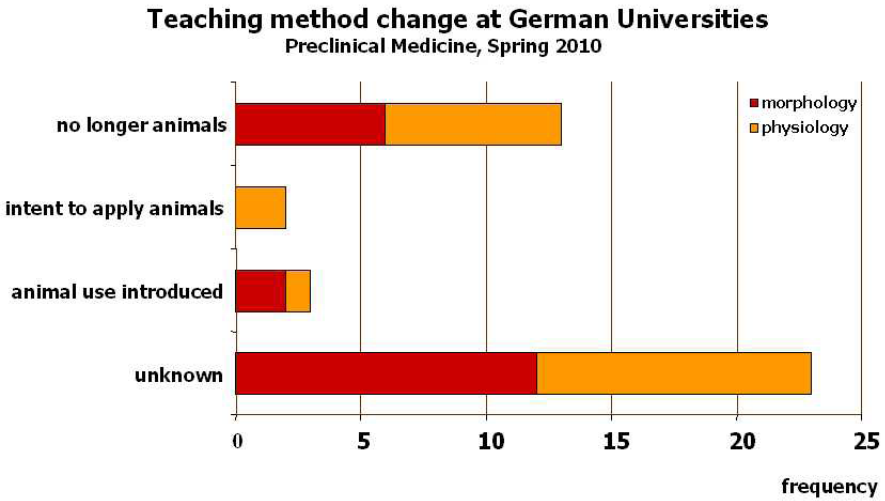
Two-thirds of the dialog partners replied and gave information about their teaching programs. Ten percent refused to reply, other did not call back at all. Some course leaders could not give information because the courses were limited and ran out.

Today students in Germany still use animals for educational purposes. In human medicine mainly small lab animals like rats and chicken embryos are used. In veterinary medicine they use greater mammals from slaughterhouses and smaller ones from veterinary surgeries like cats and dogs. In physiology courses (biology) they often use insects as locusts, flies and cockroaches as well as fishes, crayfishes, clawed frogs and their oocytes.

1. Medicine

The number of departments which use animals in the courses has not changed. What has increased is the number of departments which additionally use permanent slides. Rats were used most (see figure 1). Two departments have their own mouse-breeding division. One-day-chicks were purchased from chicken-farms, which consider the male-chicks as "waste". Oocytes and embryos came from their own breeding.



Approximately twenty percent of the departments do not employ methods which use animals or animal products. Since the last survey, four departments of anatomy/morphology backed out of the use of animals. They argue that the medical board policies do not prescribe the use of animals (see figure 2). It shows that particularly in medicine physiology courses the departments employ more volunteers and simulation software.

In contrast three departments have reintroduced the use of animals or animal organs. Two other departments intent to reintroduce animals in their courses. They argue that the students do not accept alternative methods, especially simulation programs.

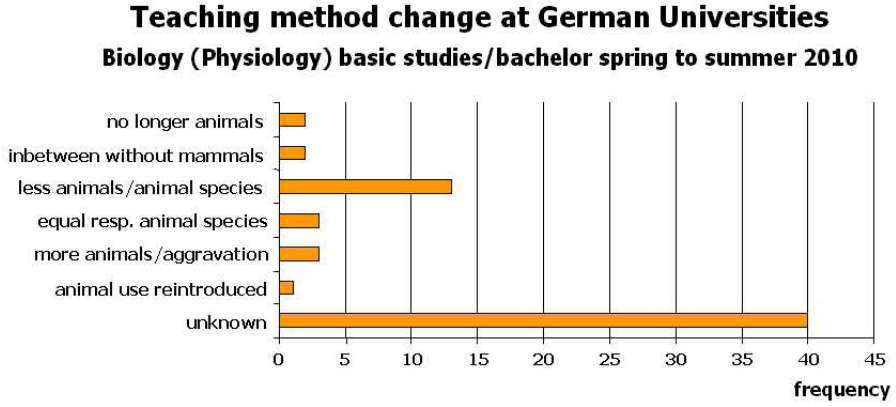
2. Veterinary medicine

The usage of animals and animal products hasn't significantly changed. Departments either apply euthanized animal pets from veterinary clinics and surgeries, laboratory animals or both. In some cases, they still use animals e.g. from commercial lifestock husbandry.
Further advances to replace the old methods are small. Models or microscopic slides are only used in two cases in order to substitute an animal-based method. Three physiology departments use simulation programs, but only in addition to the usage of rats or goats.

3. Biology (physiology)

Eleven departments use less animals (see figure 3). Seven university departments run physiology courses without using any animals at all. Eight departments are teaching without using animals or animal products, because they do not offer courses in classical physiology. At three departments the teaching methods haven't changed significantly. Three others even have increased the number of species. Since last survey the University of Dresden has reintroduced the usage of mammals.
Primarily in physiology courses insects are applied because they do not falll under the regulations of the animal protection act. Furthermore students have no ethical concerns using insect. Apart from that insects are cheap and easy to breed.

Today nine departments still use mammals respectively their organs in their courses which originally come from labs or slaughterhouses. In order to investigate the function of the nerves, the heart or the calf muscle the clawed frog are most frequently used. One department intends to give up frog experiments. On the other side one department intends to reintroduce this practice. Despite the frequent usage of earthworms only half of the departments apply a non-invasive method.
More often volunteers (forty percent) and simulation programs (forty-seven percent) are applied. But these methods are mostly used in combination with an animal-based method and not in order to substitute it.



It is promising however that the total usage of animals is decreasing. This is the case in the physiology courses of human medicine in particular.
In many cases lecturers prefer animal-based methods in order to get a good evaluation from their students. This often serves to justify the usage of animals. The decision makers stress that students want to apply animals because they consider it necessary in order to gain practical experience. Apart from that students today are overusing computers so that working with a simulation program seems to be boring to them.
Supporters of animal use propagate "the freedom of scientific research and teaching" and refer to the students who wish to continue to work with animals.

In medicine traditionally morphology is offered by the biologists who use animals. When the courses are offered by the department of medicine, they focus more on medical issues. It here turns out to be an advantage that the medical board policies do not necessarily prescribe the use of animals.

In veterinary medicine the dominating opinion is that students necessarily have to train on animals in order to become a good veterinarian. There are simulation programs for physiology, but they are used in addition to animal-based methods. Against this background it becomes clear that one is not willing to introduce non-animal methods. Animals or part of them originating from slaughterhouses are accepted probably because many of the students might later work in the field of intensive animal husbandry. Nevertheless, there are improvements: in the beginning of the next semester one department will replace goats from commercial husbandry by euthanized pets from veterinary clinics. Some universities use animals from laboratories, because there are "redundant" and have to be "removed" from the labs. It turns out to be a problem that the accommodation of animals bred for testing is not organized in Germany.

In biology courses leaders argued that they want to impart practical exercises and try to shift their responsibility onto the students. Other course Leaders argued against simulation programs by stating that one cannot see every mistake that can possibly be made.
The usage of volunteers is however a very important method and very well accepted by the students. The reason is that by volunteering the learners are able to use their own experiences in order to comprehend biological processes.
Some considered simulation software in biology is advantageous because it is repeatable and durable in contrast to animal materials. Some course leader were interested in simulation software and asked for advice which software is recommended. A promising concept is to integrate simulation software in e-learning programs.
Because in most cases simulation programs and volunteers are used in addition to animal-based methods, we can conclude that this improved the quality of teaching in general. Unfortunately this doesn't bring us closer to our aim to reduce and eventually replace animals used in education.

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