

WORKSHOP F:

THE CLINICAL WARD, CLERKSHIP OR INTERNSHIP EXAMPLE: CLINICAL WORKSHOP

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Because of the complexity of the subject "Scientific thinking in medical education", the members of the workshop decided to divide the workshop into three major parts.

The main idea of the workshop was to leave aside the purely theoretical discussion of the given problem and to focus on the real existing problems.

This goal was reached by interviewing students at their work in various departments of Internal Medicine at the University of Muenster, searching for solutions to the problem of implementation of the kind of scientific thinking discussed in the initial, more theoretical part of the workshop.

At the end of the workshop, the participants came together again to discuss their findings and to find a possible solution to the discrepancy between theory and practice.

During the first part of the workshop, a possible definition of "scientific thinking" was decided upon after much discussion. Scientific thinking is the process of making adequate decisions with inadequate information. It means finding a solution to a problem by using scientific methods, acquired knowledge and one's own experiences including:

- the capacity for self-initiated, independent learning effectiveness in establishing trust-based, empathetic relationships
- the ability to identify and solve complex clinical problems the formulation of tentative hypotheses which serve to guide further inquiry
- the collection of information in an objective way, without selecting only the findings which support the currently held hypothesis
- avoidance of overinterpretation of the findings
- the use of information concerning
 - the relation of findings to conditions
 - the relative frequency of different conditions (ie. population rates)
 - the particular characteristics of those

conditions which carry a severe risk, even if their rate of occurrence is low.

In the second part of the workshop, the participants then tried to apply this definition to the daily work of students in their final clinical year of studies. It is not surprising that the definition was rarely used by the students in their daily routine work. The participants agreed that this fact is typical not only for Muenster, but for most European medical faculties.

In the third part, the workshop came to the following conclusions:

There are three levels of Medical Education where changes are necessary, and according to participants, are easily achievable:

- the level of instruction
- the level of students
- the level of the institution

Teacher instruction has to be improved by creating **Medical Education Departments** in all faculties to direct **teacher training programs** and **systematic evaluation of the teaching quality** using student feedback. The workshop participants affirmed that the evaluation results must have obvious consequences (positive/negative) on those who are responsible for medical education.

Regarding the level of students, the workshop felt that students must increase spontaneous interaction with teachers. They must define their own learning goals, especially during the internship, and stimulate teachers to help them reach their goals.

In terms of the level of institutions, Medical Education must become as important as research programs in other fields. The majority of the participants agreed that in future, no teacher should be employed at a medical school without having passed a teacher training program.

If all these points are realized, scientific thinking will be implemented, perhaps automatically, and even in the internship.

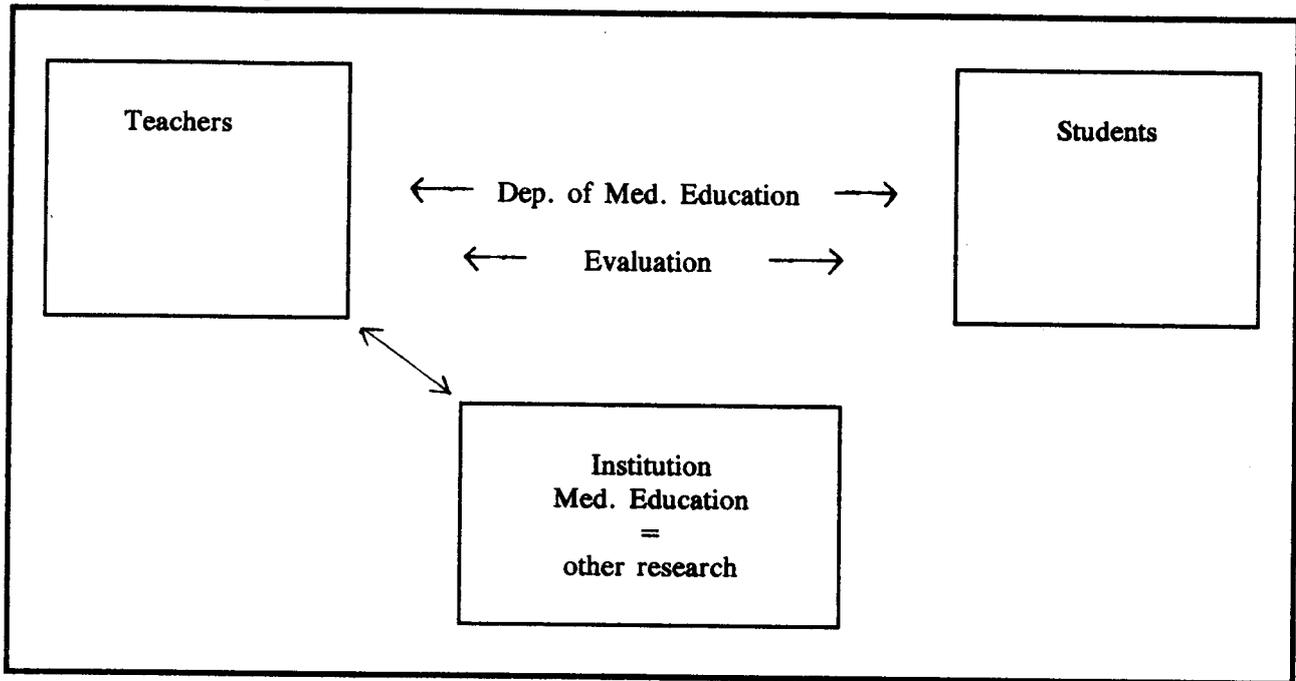


Figure 1.