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Teacher Recyclage

Recyclage is a specific aspect of teacher inservice training. It is defined as intensive training action needed in case of qualification crises happening when the teacher's knowledge of a subject suddenly becomes obsolete (e.g., massive introduction of "new mathematics" in the school curriculum) or when it is recognized that critical gaps exist in the teacher's education (e.g., total ignorance of objective evaluation principles, methods, and techniques).

Since, in most countries, the initial training of preprimary, primary, secondary, and tertiary (university) teachers does not yet include a substantial introduction to educational research, and since it seems obvious that a teacher can hardly be a regular and wise consumer of educational research findings if he or she does not possess the necessary basic technical knowledge, the case of recyclage in the field of educational research is taken as an illustration for this entry.

Many teacher-training institutions all over the world have practically no research and objective evaluation activity. As a consequence, most teachers are not familiar with the standardized tests related to the subjects they teach; they ignore the basic statistical methods and techniques needed for any empirical approach to educational problems. They have not been scientifically introduced to educational technology and automatic data processing.

There is thus an important difference in the level of qualification of teachers and other university-trained professionals, such as engineers and physicians, who study in close contact with empirical research at the most advanced level in their field. While a physician reads new research reports easily—including their statistical part—and is immediately able to apply some of the findings to daily practice, this is not the case for many teachers. At the same time, educational research and development are now reaching an ever-increasing level of sophistication: as a consequence, the gap between practice and research becomes wider and wider.

Recyclage needed to change this situation has quantitative, psychological, and methodological aspects.

The teaching profession—when it is recognized as such—is by far the most numerous. Even in a small country like Belgium, there are approximately 200,000 teachers; two-thirds of them will still be teaching in the year 2000. Unless further training action is limited to a very small minority (with little impact on the system as a whole) the dimension of intervention necessary is enormous.

Psychologically, there is a critical difference between keeping scientifically trained professionals informed of the developments of their field, and changing the reasoning, the attitudes, and the vocational behaviour of many thousands of artisans.

As for the method of influencing teacher routine behaviour, long-term sophisticated modification strategies are needed.

Three "recyclage" strategies that have much in common with usual further education methods can be distinguished: massive dissemination of information, actions of sensitization, and cooperative research.

1. Dissemination of Information

The control of this type of action is easily centralized. Lectures, reviews, newsletters, open or closed circuit television, cassettes, and videodiscs are familiar to everybody. Systems of computer-monitored selective dissemination of information are available but remain extremely expensive.

Experience shows, however, that information dissemination is useful only if the receiver has a sufficient training and information level to understand its meaning and a sufficient motivation to translate it into practice. Experience shows that, the effectiveness of this strategy is very low.

2. Sensitization Action

With this strategy, the teacher receives and participates. The paradigm is the one-week residential seminar. About 20 teachers and two resource persons get together. If more teachers are involved the group talks a lot, but does not accomplish much. A theoretical framework is sketched and, as soon as possible, group discussion and work are organized.

This is an opportunity for the teachers to discover new ideas, models, methods, and techniques that can have an impact on their practice. The fact that they undertake some individual application during the seminar gives a much stronger impact to this strategy than simple information dissemination.

However, there are two dangers. Most new educational approaches (operational definition of objectives, mastery learning techniques, programmed learning, etc.) seem easy to understand and to apply only if superficially considered. Superficiality can be as noxious as ignorance. One week's hurried exhausting work is not enough for deep understanding and attitude changes. That is why this is called "sensitization": the teacher becomes actively aware of research, evaluation, and development. This can con-

siderably increase readiness for further learning, but cannot be the alpha and omega of it. It must always be borne in mind that one or a few seminars do not suffice to transform an artisan into a professional, a medicine man into a physician.

The weight of statistically significant sensitization actions should not be underestimated. For 100,000 younger teachers of a country to be given a yearly one-week seminar, 5,000 seminars must be held, and approximately 200 teams of two resource persons are required (each animating a seminar every other week, which means exhausting work).

3. Cooperative Work

Experience shows that the most efficient way (if not the only way) to obtain deep lasting modification of the teaching behaviour is to work for a long period with teachers to solve with them some of the problems they identified in their classroom, and to use this opportunity to make them understand and use research findings, development products, and evaluation techniques. To do this, there are two not mutually exclusive ways corresponding to different epistemological approaches: cooperative operational research and action research. The former uses the nomothetic method, the latter resorts to the participatory, anthropological model.

A cooperative operational research project starts with concerns and problems identified by teachers and proceeds from this step to the diagnosis of causes and factors in these problems (Taba and Noel 1957 p. 6). With the help of a research technician who serves as a resource person, the teacher undertakes solving the specific problem at hand by systematically following the nomothetic research stages: problem identification, problem analysis, hypotheses formulation, experimentation, and evaluation. In so doing, the teacher discovers research methods and techniques as well as evaluation instruments that help to modify school practice.

Though generally efficient, this approach has been criticized because it has sometimes been used to impose indirectly predetermined ways to be teachers, or in other words, to manipulate them. A pitfall is also a paternalistic attitude on the side of the researcher. That is why the model of participatory action research is sometimes preferred.

The basic components of participatory research are (Werdelin 1979 p. 11): origination of the problem in the educational community, full and active participation of the community in the entire research process, and creation of a new teacher awareness of their own resources and possibilities of self-reliant development. The researcher is here "a committed participant and learner in a process of research, which leads to militancy on his part" (International Council for Adult Education, quoted by Werdelin 1979 p. 11). This latter characteristic really makes the difference

from the cooperative operational research model where the researcher tries to remain an objective, detached outsider.

What is the feasibility of the cooperative approach if considered in relation to the whole or part of the population of teachers of a country or region?

It must be remembered that a minimum ratio of one resource person to 50 teachers is desirable to obtain efficient working groups remaining open to innovations and producing instruments, modules, packages, and so on, that can be offered to other teachers. This exchange of teacher-made instruments is practically and psychologically of great importance.

Ideally, the resource person must have sound experience of both teaching practice and educational research. Situations can, however, be observed where experienced teachers interact with much younger and less experienced researchers, and, provided a real cooperative spirit animates the group, the results can be excellent.

Depending on their resources, school authorities can either decide to limit their support to a few innovative groups only and hope for a snowball effect, or undertake a much broader action. To do this, the existence of regional research and development laboratories, working in close connection with the schools, is necessary.

See also: Inservice Teacher Education; Participatory Research

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Teacher Roles

The term, "teacher role", is a popular one, and hundreds of studies have now been published in which it appears. Chapters on teacher role may also be found in both theoretical and hortative works concerned with teaching, its contexts, and its effects. Unfortunately, use of this term is also vague, and several different concepts are intended by authors who write about teacher roles. Many who use this term seem unaware that it has other uses than the one they intend, so our first task is to distinguish some of the major concepts to which the term has been applied. Three such concepts are distinguished here, and each is then used as a basis for discussing relevant research and theory.

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