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ABSTRACT

The introduction during the 1960's of "how-to-study methods" into the Danish educational system has been replaced by stagnation because the basis of research was too unreliable, experimental teaching was overoptimistic and marked by haste, group work has gained in popularity at the expense of independent study, and the term "effective study" has become suspect after the political radicalization of students. It is concluded that study and teaching methods must be in harmony in order to ensure the best result of learning, and a proposal is put forward for a closely-controlled teaching experiment. (Author/SW)

# Report from the Danish Institute for Educational Research

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"HOW-TO-STUDY" METHODS

- WHERE DID THEY GO?

Report No. 8

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# "HOW-TO-STUDY" METHODS - WHERE DID THEY GO?

Abstract.

In the 60's great activity was displayed as far as experiments introducing "how-to-study methods" into the Danish educational system were concerned. However, this development has now been replaced by stagnation; the causes of which are several. As regards research, the basis was too unreliable; experimental teaching was overoptimistic and marked by haste; group-work has gained in popularity at the expense of independent study and, finally, the term effective study has become suspect after the radicalization politically of students. It is concluded that study and teaching methods must be in harmony in order to ensure the best result of learning, and a proposal is put forward for a closely-controlled teaching experiment.

This report is a translation of an article appearing in the Danish journal "Dansk pædagogisk Tidsskrift" (Danish journal of education), 1974, vol. 22, pp. 89-95.

The 60's was the decade in which study-methods[1] were discovered by many Danish teachers. Newspapers and journals published articles and news-items (see literature list), educational projects were started, television was involved with a course in reading techniques, and hopes ran high as to here being the solution to a number of educational problems: individualization, effectiveness, motivation, etc..

Therefore the question must be raised as to what was expected from study-methods, furthermore, how greatly were the expectations fulfilled and, finally, what could be desired of continued activity in this field.

1) Study-methods include a number of work methods of which training in reading is one of the most important. Research and development in reading techniques have consistently been of a considerably higher standard than work with other methods of study. Proof of this lies partly in Mogens Jansen's book and articles (see literature list) and Bo Jacobsen's investigation of the benefit gained by participants in the television course in reading technique (Jacobsen, 1971). Therefore the critical observations of this present article only slightly refer to this area.

Expectations

Greatest expectations were attached to effectifying study. The wide-ranging examination requirements in the Danish gymnasia and institutes of higher education, as well as the extended study period and increasing failure-rate at the universities formed part of the background, and the slogans were "more read in shorter time", "higher marks", "lower failure-rate" and the like.

As an example, a short guide to study-methods (Bjernum, 1967) can be mentioned in which exactly these advantages are stressed on the first page (see also Poulsen, 1969 a and b where the effectivity viewpoint is dominant). Teachers whose point of departure was such thoughts of effectivity also emphasize that study motivation would be increased as a consequence of the higher marks that could be obtained within a shorter period.

Other teachers were of the opinion that the primary advantage in acquiring study-methods did not lie in more effective study but rather in a greater degree of individualization and independence of the learning process. If students could be taught to outline, formulate and select their learning objectives themselves, seek out sources and teaching materials, to plan and carry out the learning process, and finally, to adopt a critical attitude towards the material that is to be learnt, as well as to evaluate the results of their studying, they would be more independent of the traditionally-organized teaching, and more independent of the special professional interests of their teachers. Thus, the teaching could follow the students interests, personal

freedom would be greater and after final examinations it would be easier to keep up with developments **within** their profession. In other words, it would support the concept of education being a life-long, unfinished process. Here, just as with the effectivity viewpoint, the hopes lay in the greater independence giving greater motivation and satisfaction in their work.

Neither of these viewpoints has won general acceptance, and today the subject seems widely to have fallen in discredit. The causes of which are several.

Superficial research

The number of investigations into study-method problems is in itself quite impressive. A review (Poulsen, 1969 a) of some important registers of, among other things, educational research reports ("Psychological Abstracts" and "Education Index") showed that between approximately 1930 and 1960 more than one hundred investigations of varying sizes had been carried out. However, a deeper analysis of the methodological quality of this research showed that nearly all of them were vitiated by serious sources of error, and therefore the weight behind the results was unreliable. As an example, an investigation (Pauk, 1965) can be mentioned in which the researcher concluded that the teaching of study-methods without reading-training gives higher marks than the combined teaching of study-methods and rapid-reading. An analysis of the original report (Poulsen, 1970 a) showed that the basis for this conclusion was extremely unreliable.

In other words, it has been difficult, or practically impossible, for interested teachers to substantiate the value of study-methods by referring to educational research.

Overoptimistic experimental teaching and private-course activities

Today it seems quite reasonable to regard an adult's study--methods as a very stable factor that can not easily be altered. Methods of study have laboriously come into being based on many years' experience in school and possible further education. It is these, together with other personal and social factors, that have taken the individual to a certain level in the educational system. The higher the level the greater the conviction as to the excellence of the study-methods. Therefore, it should not be believed that study habits can be radically altered in a short time; yet, nevertheless, this is precisely what people (among them the present author, see Poulsen, 1969 b) believed and promised in the teaching of study-methods in the 60's. Study habits were considered as relatively subordinate, easily changed psychological factors, and both private and public courses promised participants without more ado that they could acquire in a short time completely different, and better, methods of study.

Teaching mainly took the form of short, concentrated courses - often only 10-20 hours - where individual proficiences such as note-taking techniques, familiarity with libraries, analysis of textbook chapters, and much more, each with accompanying exercises, filled at the most only

a few hours. The naivety of believing in such easy, rapid cures is clear enough today, but at the time work was coloured by a general sense of optimism perhaps originating from the tone of some of the more wide-spread American guides. Regrettably it must be stated that extremely few investigations claim to have demonstrated any effect from these courses.

A close examination of such courses, and talking with the participants, leaves the impression that the teaching, in addition to the general haste, was often marked by an uncritical attitude towards the contents of the books on study-methods and reading methods, an insufficient mapping and correcting of specific individual weaknesses, the absence of following-up with repetition and maintenance of what had been learned, the unrealistic promises to participants of rapid improvement of effectivity, the failure to take into account that participants had varying reading levels, and many other things. Some other decisive weaknesses were; firstly, an unwillingness to "follow" the participants after the course to see how long a possible effect was maintained. Secondly, the fact that the course was a transition stage between two sets of habits was ignored. The original study habits appeared to be excellent as they were well practised, the new, and potentially better, methods appeared to be more difficult than the old ones because they are not yet practised routines. If the external requirements made of the student are kept at the same level, the student might easily abandon altering study-habits as the new methods appear more difficult than the old. In order to avoid this,

it is expedient to lower the requirements during, and for a while after, the course period, and only raise them to the usual level when the new methods have become thoroughly established. Thirdly, there has often been an unrecognized discrepancy between what is regarded as important during the teaching of a study-method - i.e. rapid reading - and what is considered important in examinations - i.e. learning by heart and textbook material.

All in all, the impression remains that most courses promised more than they could give and have aroused expectations that could not be fulfilled thereby influencing educational opinion in a negative direction. Certainly there are now very few teachers who become starry-eyed when the subject of teaching study-methods is mentioned.

The popularity of group-work

One of the more negative features characterizing the Danish school and education system up till now is the encouragement of competition between individuals as an incentive to get them working more energetically. Those study-methods that primarily aimed at obtaining higher marks in a shorter time (memorizing of essentials, systematic repetition, survey--question-read-recite-review and others) were consistent with mark-mania and competition dominated accentuation of the "best" students at the expense of others. Therefore, it is easy to understand why the reaction against the collaboration-hostile competition system prevailing up till now also hit study-methods. When the scales tilted in favour of project orientated group work (and like ideas) interest

focussed on other methods: group dynamics and collaboration exercises that concentrated on the emotional climate of the group became the fashion. For some years a popular educational opinion has been that participants in educational group work learn what they need to know almost as an automatic bi-product of good collaboration, experiencing "good vibrations" etc.

However, it gradually looks like the significance of the purely practical difficulties of work-methods that such groups can encounter has been underestimated. In the long-run, getting--onwell together is not enough if the ultimate aim is to obtain a certain learning objective, some concrete results that are of a satisfactory quality. It is obviously one-sided and harmful to stress the individual study-effectivity as part of the competition and mark-hunt, but it is just as unfortunate to believe that the individual automatically works better in a group given that the participants exhibit mutual sympathy. A group in which the individual participant can not work independently is extremely vulnerable because it is forced to a high degree of specialization - that is to say, the individual does what she/he is already particularly good at - so that work comes to a halt for example if anyone is unable to attend because of illness, diminishing interest, etc. and this leads to the individual not developing in areas other than those already controlled. Study-methods promoting independence and satisfactory group collaboration are not incompatible - on the contrary.

Study-methods and teaching-methods

The last two themes: the problems surrounding study-methods, and the difficulties in placing study-methods in relation to project-orientated group-work lead to the conclusion that the best learning results are obtained when there is harmony between the individual study-methods of the participants and the educational work pattern the leader/teacher/participants have selected to use to reach a certain learning objective.

The future role of study-methods in education and teaching depends entirely on the significance of this relationship and its consequences being understood.

Attempts to introduce a new educational work-form, project-orientated group-work have in many places misfired. Perhaps this is due to just this lack of training in the individual study proficiencies conditional for group work to give results. The contrary case can also be demonstrated, viz. that total independent study fails because the appropriate study-methods have not been practised. The following extract from an American analysis of the causes of independent study often disappointing the expectations of educationalists is used to illustrate this point:
Second, having had years of training in certain teacher--directed patterns of education, the student is perfectly capable of privately preserving these patterns, at least in large part, unless far more drastic changes in his situation are introduced, or, alternatively, unless training methods are developed to deliberately break up these patterns. Given a textbook, a course outline, and an impending final exami-

nation, there is nothing to prevent the student from re-creating and maintaining the passive, cramped, teacher-directed study pattern to which he has long been accustomed. Indeed, since he has four or five non-experimental courses to cope with at the same time, the student in the experimental group often sees his only salvation in resisting whatever temptation to strike out on his own the selfdirected study course may offer him. Much of our interview material suggests that this is actually the case, Gruber and Weitman, (1962) and Campbell's more restricted laboratory experiments, (1963), suggest a similar conclusion. For if the American college student has learned little else, he has learned the strategy of passive acquiescence in uncritically assimilating the material the teacher thinks is important. (Hatch & Richards, 1965, pp 3-4).

The introduction of new teaching methods - whether they be independent study, project-orientated group-work or other methods - is doomed beforehand to fail if the participants in the course have not mastered the study-methods corresponding to the educational work-patterns. The relationship is clearly seen in the transition from the Danish gymnasium to university. Recent investigations (Poulsen, 1968 and 1970 b) show that the transition from gymnasium to university, at least as far as the subject of mathematics is concerned contains unreasonable difficulties because the study-methods that were suitable in the gymnasium do not function well in the university environment. Among other things, there is, therefore, no definite relationship between study results

in gymnasium and those in the university. But instead of aiming at the training of independence promoting study-methods in the gymnasium they have tried to maintain the teaching methods from the gymnasium by allowing the university to give in and introduce small groups and teacher-directed courses.

Student criticism

A particular source of animosity towards study-methods is of a more ideological character and is related to the greater student awareness that has taken place since the student revolution of 1968. Instead of being obsessed with higher marks and shorter studying time more attention is being paid to the content of the study activity, which subjects and ways of presenting the problems are being used and whose interests, be it social class or powergroup, are hereby favoured. It is obvious that this greater awareness means that many students distrust the introduction of reading and study-methods in the sense of "effective work methods". All this talk of effectivity, all the method-mania, is decidedly unpopular.

Furthermore, many students are fully aware that effectivity promoting study-methods could well be the crutch upon which the obsolete curricula could hobble along on for a little longer. Among other things, they foresee that such study-methods could be misused to prolong the confused expansion of examination requirements that for many years has characterized many university courses - for, after all, the

students can now read twice as fast. Finally, there is, quite understandably, resistance to a revival of individual competition and mark-mania with the likelihood of less solidarity among students as a result. But here a distinction must be made between, on the one hand, study-methods that mainly fit the old curricula, with their teacher-direction, competition mentality and mark-mania and, on the other hand, study-methods that promote an independent and critical attitude to study and that serve to liberate the student from dependence on a course of teaching that today is principally organized and controlled by teachers.

Conclusion

Today - in 1973 - there is it is true some activity as far as study-methods are concerned, but no development - everything has practically come to a standstill. A little is written about study-methods in Danish educational journals, some teaching still takes place in night-classes and private institutes, but development within the field has come to a halt. It is probably no exaggeration to say that work with study-methods has completely reached an impasse. The teaching of study-methods up till now has failed, and left many teachers convinced that it was just one of many educational fads. In the preceding paragraphs the purpose has been to show why this came about and, at the same time, to introduce arguments for study-methods that promote independence and a critical attitude to study-work being today even more important than ever because attempts have been made to introduce

freer patterns of teaching without developing in the pupil and student more appropriate study-methods.

Ironically enough, a radically altered framework is necessary if this re-education of pupils and students to a more independent and critical study behaviour is to succeed; but few teachers support the providing of this framework because the first wave of courses in study-methods was a failure: a failure due to insufficient knowledge, inadequate conditions and rash optimism.

What now?

It would be a step in the right direction if a few, thoroughly organized experimental and demonstration projects, where teachers and educational research-workers together with pupils and students, re-examined the value of various study--methods under various conditions. The teaching experiment should extend over a period of time, and the participants should be followed up for some time after the end of the course so that some idea is obtained of how long they benefit from what they have learnt. If possible the course should run in conjunction with the teaching of that subject in which the study-methods are to be used.

Some confusion exists as to where study-methods end and where the special work-methods of the individual subject begin. It would seem to be most productive to regard this as a gradual transition between study-methods that can be used within clusters of subjects that are closely related as to content - i.e. Danish-history-social knowledge or

chemistry-physics-mathematics - and the special work methods of the individual subjects - i.e. microscopy in biology, cartography in geography, psychotherapy in psychology, pragmatic analyses in literature studies, etc. It can then be discussed as to who should teach what; whether only the specialist teacher should teach study-methods or whether it would be more appropriate that quite separate teaching be given in those study-methods that could form the basis for a more subject-specialized work in several closely-related subjects. Provided this is not exaggerated the latter solution is the more attractive as one hereby avoids exposing school pupils and students to unnecessary repetition.

Correction

This article is primarily based on personal research and experience related to the secondary (Gymnasium) and higher levels of the Danish educational system. After the article was published, evidence was discovered of a considerable activity in Grade 1-7 of the general school system. The exact course and scope of this activity however is not clear at present.

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