

The *Deutsche Didaktik* and the American Research on Teaching

Abstract

This chapter presents an historical overview of the development of the “Deutsche Didaktik” and compares it with the American tradition of research on teaching. This tradition is traced back to Johan Amos Comenius in the 16th century as a practical and normative doctrine and various trends within the 20th century are identified. The absence of almost any discussion of Didaktik in British and American literature is highlighted. In relation to this phenomenon, there is a discussion of how the traditions (Deutsche Didaktik/Anglo-American curriculum theory) separated in response to political and ideological circumstances. It is noted that reform pedagogy and new conceptualisations of Didaktik did not reach American education. In addressing the aspect of Fachdidaktik, it is argued that only erudition-centred Didaktik/Geisteswissenschaften has a clear position on this question. In essence the main task in this tradition is seen as a theory of educational content (Theorie der Bildungshalte) according to its value in the curriculum and in the instructional process. Finally some observations are offered on the Nordic alternative and the conflict between the different traditions of educational psychology/empirical research and geisteswissenschaftliche Didaktik/hermeneutics is highlighted.

Introduction

My interest in *Didaktik* began in my early studies in the psychology of education and learning theories. All the textbooks were in English or in Swedish and the students of my generation got a very thorough understanding of the American way of thinking in educational problems and how to do research correctly. There was only one way: according to the method of science. In the late 1970s I found Wolfgang Klafki’s book *Studien zur Bildungstheorie und Didaktik* in a book sale. I remember that I understood practically nothing of its content.

As a university teacher of the foundations of education one of my courses was about the basics of *Didaktik*. It was always confusing to use the concept of *Didaktik* without really knowing what it meant. I knew that it came from Germany but its content was from the American curriculum research or from American educational psychology. Although we co-operated with the IPN in Kiel when the curriculum research was at its peak in the 1970s the content of the *Didaktik* was in the background. At that time there was no need to get acquainted with the human sciences or *Geisteswissenschaften* or its method, hermeneutics.

Gradually, when general attention began to focus more and more on the theoretical background of the empirical models, the question of the nature of the *Didaktik* became of current interest. In Finnish teacher education *Didaktik* is the main subject and, because my chair represents teacher education, it became a personal problem to find an answer to the question *What really is Didaktik?*

It was not possible to find an answer from American literature or from German literature on curriculum research. After some conceptual analyses there was no other way to solve the problem than to begin to read German *Didaktik* books, among others the old Klafki. But it was not easy at all. In the Nordic university libraries you cannot find a sufficient number of German books, you must go to Germany. Luckily, in those German universities that I know the libraries are excellent. This literature opens a whole new world and you notice how it becomes possible to think differently about the same problems.

The background of German didactic models

The German *Didaktik* (*didactica*) was founded by Wolfgang Ratke and Johan Amos Comenius (1592–1670) at the beginning of the 17th century. Its idea was to develop a general method of teaching compared with the logical method which at that time was thought to be the best way to present the teaching content in order to bring about learning. *Didaktik* was a practical and normative doctrine by nature (*Lehrkunst*) and the best-known presentation of its early characterisation is *Didactica Magna* by Comenius.

The position of *Didaktik* with regard to pedagogics (*Pädagogik*) changed during the next few centuries. The work of Johann Friedrich Herbart (1776–1841) again brought the status of *Didaktik* to the centre of education, with his formal stages and with his principle of education through instruction. In his time *Didaktik* had a strong position as a science of education (*Wissenschaft*). *Didaktik* was mainly concerned with education at schools. Schools were practically the only places where organised education took place.

At the beginning of the 20th century *die Reformpädagogik* acquired its great representatives (Kerschensteiner, Gaudig, Petersen) with the main focus on child-centered activities. On the theoretical side, pedagogical thinking was dominated by *geisteswissenschaftliche Didaktik* (Nohl, Weniger, Klafki) until the early sixties when the empirical-analytic paradigm gained some ground (Heimann, Schulz, Otto). Thirdly, critical-communicative *Didaktik* offered an alternative based on critical theory and especially on the ideas of Jürgen Habermas.

In addition to these three theoretical models, in contemporary *Deutsche Didaktik* there are numerous minor variations and local versions. The development has brought the main models closer to each other as the theoretical background of the models has been analysed. *Die Didaktik* has also been in close contact with teacher education. By nature, *die Didaktik* in Germany has always been philosophical thinking, theorising, and construction of theoretical models.

The American tradition of research on teaching

The American tradition of research on teaching and on the problems of curriculum development is not as long as in Germany. It can be traced back to pragmatism and to its main representatives Herbert Spencer (1820–1903) and William James (1842–1910). The influence of John Dewey and William Heard Kilpatrick in particular has been great. At the same time, educational psychology, with Edward L. Thorndike, achieved its central position in research on teaching in the US. The fundamental interest in teaching was practical by nature.

The predominant approach to the problems of teaching has been research on teacher and teaching effectiveness. Along these lines there has been a series of model building from Mitzel, Dunkin and Biddle to Shulman (Gage 1963, Dunkin and Biddle 1974, Shulman 1986a). The purpose of this kind of thinking has been an attempt to find those teachers who could attain the best possible results

and to determine those factors which are crucial in planning and acting in the teaching process. In this way research is also connected with teacher education.

On the theoretical level, the development of theoretical models has concentrated on empirical research and on testing these in real situations. Mastery learning in particular, based on the ideas of John B. Carroll and Benjamin S. Bloom, is well known in this respect. Bruce Joyce and Marsha Weil have collected the various philosophical and psychological strategies and formulated applications to teaching.

Most of the research on teaching has been empirical and with quantitative methods. The latest developments, however, have led to alternative approaches. The most commonly used process-product-paradigm is not as dominant as it was earlier and studies with qualitative research methods have greatly increased. The theoretical background to the discussion of research problems is clearly research methodology which leads to other philosophical questions.

Some preliminary conclusions

Comparison of terminology

Die Didaktik – didactics

Didactics (*die Didaktik*) is a difficult term to use. Its origin is an applied translation from Greek meaning both teaching and learning (Heursen 1986, Knecht-von Martial 1985). Wolfgang Ratke and Johan Amos Comenius were the founders of this terminology and the first to launch the term in their writings, but *Didaktik* was an artificial term in a certain way. The respective family of words in Greek was not translated with a German word but with an application of the original *didáskein* via Latin *didactica*, which was also artificial. Its very first meaning was about the same as the art of teaching or *Lehrkunst*.

Die Didaktik was gradually taken into more general use alongside *die Pädagogik* or pedagogics, but its use was limited to German-speaking countries or to countries having cultural relations with Germany. As a result, *Didaktik* is nowadays in use in Central Europe and in the Scandinavian countries, but it is practically unknown at least in English- or French-speaking countries in the area of education. The very word can be found in dictionaries with quite different meanings, however. It is based on *didascalía* having the meaning of a didactic poem (Blankertz 1975, 14), and that makes its use most awkward and disturbing.

What then is the proper translation of *Didaktik*? (cf. also Kansanen 1987). If we emphasise the normative side of *Didaktik*, the most convenient description would be the art of teaching. This expression, however, already has its own context (cf. Gage 1978). But if we want to keep the definition as wide as *Didaktik* is nowadays, the art of teaching is too narrow because there is no reference to learning in its meaning. Naturally, there are various interpretations of teaching (cf. Smith 1987, including older references), but what is essential in this analysis is that *Didaktik* is at the same time a second order term. It is thus a model or a system of how to envisage the teaching-learning process as well as a kind of metatheory where the various models can be compared with each other.

If we emphasise the descriptive side of *Didaktik*, the research aspects come to the fore in its content. Then the proper expression would be research on teaching. If we look into the well-known research models of Mitzel, Dunkin and Biddle, and Shulman, the aspects of learning can also be seen there. The difference between the descriptive *Didaktik* and research on teaching is in their background or in the purpose of their model building. The first, *Didaktik*, is mainly meant for teacher education

and the models are based on a philosophical conception of man and on the nature of research concerning his/her education. The empirical research results are not a prerequisite for its building, but the results are used, naturally, in a corrective way when they are in conflict with the model variables. The second, research on teaching, is meant for research purposes and that's why the models are mainly inductive by nature and based directly on research results. Practical conclusions can be drawn from these models and thus they can function in teacher education, too.

Earlier, in the American research mainly based on empirical-analytical foundations, most of the research was conducted with the so-called process-product model. The picture has changed and alternative research paradigms can be found (cf. Guba 1990). At the same time, the philosophical foundations have become more versatile and the situation reminds us in many ways of the parallel state of affairs in Germany.

Looking at the same problem from the other side, we can pose the question of how to translate *research on teaching*. Here we can find an easy solution: it is *Unterrichtsforschung*. This translation makes it clear that the core is classroom research with a psychological or social psychological emphasis. The research problems are mainly empirical. If we now compare *Didaktik* and *Unterrichtsforschung* we notice essential and great differences in their use. First of all, *Unterrichtsforschung* is only part of *Didaktik* and with their comparison the different philosophical traditions come to the fore. Secondly, *Didaktik* is of genuine German origin. It is based on a philosophical tradition of its own with such names as Kant, Herbart, Schleiermacher etc. The different schools of *Didaktik* which exist in the German literature mainly refer to the German tradition. It should be noted that the more empirical elements in a model of *Didaktik*, the more references can be found to American research on teaching. The content of *Unterrichtsforschung* consists of empirical results; it is descriptive by nature and it is classroom research employing all possible means and, in principle, with different kinds of philosophical backgrounds.

I have also suggested that *Didaktik* can be found in textbooks of educational psychology (Kansanen 1987). Those books (e.g. Gage and Berliner 1984) have lengthy sections containing background material of a purely psychological nature, as well as clear normative sections. The psychology of education and *Didaktik* are linked together, being referred to as educational psychology. Teaching methods in particular are those parts in which the practical side comes under consideration. The theoretical references are to the theories of curriculum and that is why the analysis of the term *Didaktik* is not possible without considering the meaning of curriculum.

Curriculum – das Curriculum – der Lehrplan – die Didaktik

Josef Dolch (1959, 318–319) has pointed out the early use of the word *curriculum* in both German and English. In Anglo-Saxon educational literature it has remained since then in the terminology; in German it was displaced during the 18th century with the word plan and further with teaching plan (*Lehrplan*). It was the philanthropists who took the new term up and Herbart was already using it at the beginning of the 19th century.

The word curriculum came back into use in German during this century, in the late sixties (e.g. Blankertz 1975, 118–122). Through American influence, *das Curriculum* was taken into use as a better version of a teaching plan. It was Saul B. Robinsohn (1967) who introduced a new approach of curriculum planning with his book which at the same time was broader in its meaning than the former teaching plan (*Lehrplan*). The application of the term curriculum was based on the American idea of *Reformpädagogik* by John Dewey and its focus was on every individual pupil and his/her learning experiences. Herwig Blankertz describes (1975, 122) the differences between these two terms from the German point of view. The teaching plan had become more and more a plan for the

teacher of how to organise the activities when teaching a special subject and choosing the content within this subject. The new conception of the teaching plan *curriculum* concentrated on every pupil and his/her learning.

Thus, the curriculum was defined through the learning experiences, and common to various definitions was the focus on the individual pupil and the learning experiences which s/he was to encounter during his/her time at school (cf. Hosford 1973). If we take the broadest meaning of the curriculum, it consists of all the experiences organised during the time the school is responsible for the pupil. This also contains, by definition, such experiences which are not consciously planned but which are happening in the school. Thus, in this case there is no room left for the hidden curriculum because all the experiences are within the curriculum (cf. Jackson 1992, 4–12.).

Gradually, the meaning of curriculum was broadening and as curriculum theory, its scope was nearly the same as traditional *Didaktik*. The word, *das Curriculum*, was directly taken into use without any special translation and its content was becoming more and more the same as *Didaktik* with a particular emphasis of its own (cf. Frey 1971). Wolfgang Klafki (1974) wrote an article in a dictionary under the common heading “Curriculum – Didaktik” and it seemed that *Didaktik* would be subsumed under the more general curriculum. It was a radical interpretation of traditional *Didaktik* and it showed a certain change in thinking about the old subdiscipline of education. It was, however, only a question of how to compare these two aspects which were parts of the more general *Didaktik*. In this article Klafki described the old directions of didactic models and in addition to that, the aspects of curriculum planning and controlling or evaluation. So one can say that it reflected at least a different conception of the problems of *Didaktik* and it had great influence on practical curriculum development.

The research on curriculum problems concentrating on development, planning, and evaluation grew greatly during the 1970s and it reached its peak in the early 1980s. The results were reported in large handbooks (Frey 1975, Hameyer and Frey and Haft 1983): *Didaktik* and curriculum theory were considered as parallel areas of the same subdiscipline. During these years the emphasis was on curriculum theory and it had a very important role in the efforts to achieve school reform, and in particular in reforming the old teaching plans into a modern curriculum.

It is not easy to define the curriculum, and difficulties arise because curriculum as a concept has numerous semantic contents and nuances depending on the context in which it is found and on the purpose for which it is used. Reisse (1975) points out that the term curriculum is strongly culture-bound which is why comparison of its meanings across linguistic boundaries is fraught with a variety of difficulties. Additionally, of course, any term may also have several meanings within a specific cultural environment (cf. Connelly and Lantz 1985). The American influence of the implementation of the term curriculum can be evaluated from the point of view of planning and evaluation of education in institutes. The problems of formulating educational goals and objectives as guidelines for teaching practice were focused on, and methods of evaluation, both in the classroom and on the school level, became more important than before.

The question of the relationship between *Didaktik* and curriculum has gradually lost its interest and the status quo seems to have been achieved. The impulses have come from the American research, but there is hardly any evidence of impulses in the opposite direction. One could conclude that the didactic aspects of curriculum have integrated into *Didaktik*. Zimmermann (1986) is of the opinion that discussion can be reinstated because we now know the good and bad sides of the problem.

The independence of education as a discipline

The first independent chair of education was established at the University of Halle in 1779. The very first professor of education was Ernst Christian Trapp (1745–1818). His idea “*Versuch einer Pädagogik*” was to no longer base education on philosophy and theology but on the nature of man and on contemporary society. He also spoke about such modern research methods as observation and experience as a basis for conclusions. This professorship is considered as the start of an independent discipline and it is clear that it happened in Germany where there had been much educational thinking in the area of philosophy and theology. It took about one hundred years before independent professorships in education were established in England, Scotland and the US (cf. Sjöstrand 1967, Wulf 1977).

From the beginning, education was considered as an independent discipline with its own problems. The current classification of education can be traced back to the German tradition and there are certain differences between the German and the American way of classification. There are three or four common basic problem areas: education in general, the psychology of education and sociology of education. Usually, the classification must be made according to one criterion at a time, and this point can arouse some confusion. The most common criterion is the classification of disciplines. However, there can be such criteria as the content of education or the age of pupils etc. In a well-known German example (Röhrs 1969) general education consists of pedagogics and *Didaktik* (*Pädagogik und Didaktik*) and the latter is usually seen as a subdiscipline concentrating on the questions of teaching. General education is further divided into sub-areas using educational reality and the stage of life as criteria for the division. This leads to school education (*Schulpädagogik*), special education (*Sonderpädagogik*), pre-school education (*Pädagogik der Frühen Kindheit*), vocational education (*Berufspädagogik*) and adult education (*Erwachsenenbildung*). In addition to the basic classification, the history of education and comparative education overlap all the other areas.

In British educational literature there has been a consensus of opinion about the nature of education. However, Paul Hirst does not agree with the term *discipline*, he prefers to use the term *a field of study* (Hirst 1983; Tibble 1966). Lee S. Shulman also says the same: “...education is not itself a discipline. Indeed, *education is a field of study*” (Shulman 1988, 5). So there are some doubts about the status of education depending on the way we think of formulating its problems. At the same time, there are many aspects and many possible approaches resulting in various research methods which have their foundations in several background disciplines. That is why any attempt to make a systematic classification does not succeed without many simultaneous criteria.

In any case, in British as well as in American educational literature, the sub-area of *Didaktik* seems to be lacking. As we have seen earlier, much of its content belongs to educational psychology. In the American literature of research on teaching, the problems of teaching and learning in general are usually held together without any theoretical model building. Attention is paid to the methodological problems, and there the various background principles can be seen. In German educational literature, didactic problems define an independent subdiscipline of education which really is very much the same as general education, but, however, with its own point of view. The area of *Didaktik* is mainly larger than educational psychology and it includes much philosophical and theoretical thinking. In German literature *Didaktik* and educational psychology are clearly separate fields with different representatives. The situation in Great Britain and the US is quite the contrary; the same people are working in this common area. Naturally, there are differences as to the importance given to some aspects of the problems, e.g. the role of learning in the teaching process.

How the traditions separated

We know that at the end of the 19th century American educational research had many contacts with German research. Walter Doyle (1993) refers to the term *didactics* as he quotes Paul Woodring's text in the 1975 Yearbook of the National Society for the Study of Education with the astonishing remark that a chair of didactics was created at the State University of Iowa in 1873. We also know that John Dewey was a member of the first executive council of the *National Herbart Society for the Scientific Study of Education* that later changed its name to *the National Society for the Study of Education*. The texts of Hegel and Herbart were known to him and to other colleagues through translations. At the personal level there were numerous contacts and study trips and consequently the language of education was common to both.

Stephan Hopmann has analysed in depth the early history of German *Didaktik* and the common background of German and American *Didaktik* (Hopmann 1992). Although there were many contacts with Herbart's ideas and progressive education had its respective version as *die Reformpädagogik* in Europe, the contacts suddenly ended at the beginning of the 20th century. Hopmann (1992, 7) also remarks that there were, however, certain differences between the progressive movement and reform pedagogy; the latter emphasised teacher education and schooling whereas the former was more concerned with social change and politics.

Further, Hopmann (1992, 8) states that it was the educational psychology that the Americans (Hall and Dewey) took from Herbart, not the whole of *Didaktik*. The main reasons for the spread of *Didaktik* in Germany were the state guidelines for the curriculum and the system of teacher education in the seminaries (Hopmann 1992, 4–5; Hopmann and Riquarts 1992, 22). These required a central solution and central models of schooling problems in society. The criticism of Herbartianism that it was a mechanical application of the ideas of Herbart led to the reform pedagogy and through it to new conceptualisations of *Didaktik*. This new development did not reach American education and at the same time the word didactics disappeared from the terminology. That meant a different sort of development in both countries with amazing disparities.

Walter Doyle and Ian Westbury (1992, 138–145) explain the development of American education by referring to the structure of governance in the system of schooling. The local boards of education had the responsibility for the effectiveness of the schools and the role of the superintendent was central. The interaction between the school and the local community was very intimate. Although the individual states had constitutional responsibility, the control was merely a formality. In addition to these basic characteristics, the absence of church had many consequences in the curriculum and in practice. The model of teaching was the same as in business life: "They (teachers) were and are a labor force to be motivated and managed as any large enterprise's labor force was motivated and managed". (Doyle and Westbury 1992, 140). It is easy to see, I think, that the atmosphere was not very encouraging to independent and autonomous action. Accountability was always narrow and the local boards and public held direct control over the school and the teachers.

Instead of *Didaktik*, psychology of education took its place as a discipline of the science of education in the US. At the same time this line of research in Germany became separated from *Didaktik*, although there was at first a close relationship between them. Concerning this development in the US there is a certain important point that needs special attention. Doyle and Westbury (1992, 141) quote Ellen Lagemann as saying "one cannot understand the history of education in the United States during the 20th century unless one realizes that Edward L. Thorndike won and John Dewey lost". This can be seen e.g. in the well-known textbook of Robert M. Travers (1978) where Thorndike's position is central. Afterwards it is easy to say that this way of thinking was too fragmented and its behavioural and experimental features were too narrow to apply to the whole

process of education. This phase, I think, however, was necessary in the development of educational research. The defects are not to be found in the psychology of education itself but in the way it was applied over the whole field of education, without alternatives.

Empirical research can be done in many ways. Some of us do it without thinking of the philosophical assumptions behind the procedures. Some practical problem guides the thinking, and research methods are selected according to their practical value in finding solutions to the problem. In this example the awareness of the method has not been aroused and the way of doing research is self-evident and it is not problematised. To follow the Kuhnian language, the action is happening inside the dominating paradigm where all researchers agree with each other. I think that looking at the problems of education through the glasses of the psychology of education has been this kind of paradigmatic work and all the participants have been content with it. The science of education has been a practical tool in administration at the local level and attention has been on practical problems in real situations. Thinking with psychological concepts is thinking with the problems of students (learning, motivation, ability, achievement, tests etc.). It is at the same time empirical-analytical as well as democratic towards the process of education.

The other side of the coin, many American colleagues claim, is that the practical approach has neglected the importance of content in the curriculum and instruction. Naturally, psychology of education as a background discipline leads thoughts to the psychological content and particularly to management and learning problems. These are no doubt an important part of the totality but not sufficient in themselves. Finding the content has led to looking at the European *Didaktik* again but this time from a special point of view, *Fachdidaktik*. I dare to point out, however, that the psychological problems have not vanished from the instructional process and that's why the general aspect of *Didaktik* should be kept in mind constantly.

Peter Menck (1993) has referred to the early German tradition of empirical educational research that existed alongside the old tradition of *Didaktik*. As we know, Wilhelm August Lay and particularly Ernst Meumann (1862–1915) are its main representatives. Meumann had been a student of Wilhelm Wundt but his interest had turned to the problems of *Didaktik*. Their experimental *Didaktik* could not gain status and it got only a marginal position in the area of German *Didaktik*. Heinz-Elmar Tenorth (1988, 214–219) calls it “der szientifische Flügel” – the scientific wing of reform pedagogy. Although its influence seemed to be small it had some very important disciples who were to continue the approach in a way that was discovered only after many years. Aloys Fischer (1882–1937) was the first and he turned the research from experimental to descriptive and Peter Petersen (1884–1952), a disciple of Meumann, was the other one who is generally considered the founder of the so-called *Pädagogische Tatsachenforschung*, empirical research on pedagogical facts.

Fischer developed his ideas in a phenomenological sense but independently from Husserl (Tenorth 1988, 217). The basic idea in this descriptive empirical research was to look at the instructional process as a phenomenon that is as much as possible theory-free. That requires observing the process as it is, without any predetermined theoretical assumptions. Petersen developed a sort of observation system in his Jena-Plan-School. The most important and central concepts were the pedagogical situation and the various aspects, pedagogical facts, that describe the pedagogical situation.

The descriptive line of *Didaktik* did not succeed in gaining a respected academic position and it remained a side trend lagging behind the erudition-centered *Didaktik*. The latest well-known work is that of Friedrich Winnefeld (1957).¹

This line of development of the descriptive *Didaktik* is the German alternative to the empirical *Didaktik*. The literature is almost unanimous in stating that educational psychology in Germany has

been an independent discipline without any close relations with *Didaktik* and that the empirical influences have in general come from the US and from its psychology of education. In *Berliner Didaktik* the empirical approach is to be seen but gradually that part diminished with the work of Schulz. The contacts between German *Didaktik* and American research on teaching have been quite few.

As a conclusion it can be said that the erudition-centered *Didaktik* did not gain a footing in the US in the beginning of this century. Instead, the reflection on teaching continued in the psychology of education. In Germany reform pedagogy transformed into erudition-centered *Didaktik* which later found some rival directions. The empirical-analytical approach did not succeed in making a breakthrough in Germany in spite of a good beginning with Meumann and Lay. It lived for some time as descriptive *Didaktik* but it did not develop into psychology of education. The latter received its impulses from the US and has been a separate area alongside *Didaktik*.

The work of Peter Petersen is, however, very interesting from the viewpoint of German-American relations. Herman Röhrs (1993, 11–19) takes Petersen as an example from this interaction, as he analyses progressive education in the USA and its influence on European reform pedagogy. On the practical level the discussion about progressive education was international and the well-known systems of school reforms of Helen Parkhurst, Carleton Washburn, Maria Montessori, and Peter Petersen were influenced by each other. The “New Education Fellowship” was a connecting link between educational practical workers and researchers. In 1928 Petersen made a visit to the USA and became familiar with the American situation. This was later seen in his Jena-Plan. In spite of these kinds of relations between individual colleagues, the main trends in the area of *Didaktik* grew apart. Naturally, the political situation in the world contributed, but there were some ideological reasons, too.

Some contemporary trends

The role and the meaning of knowledge in educational research in recent years have clearly increased. Some interesting viewpoints have been brought into the terminology and communication. Shulman (1986b) has focused on teachers’ understanding of the subject they are teaching. In addition to content knowledge, the essential substance is pedagogical content knowledge. This same aspect has been referred to by different names, and Reynolds (1992, 5) introduces various alternatives which all have something special: content-specific pedagogy, subject-specific pedagogical knowledge, content-specific cognitional knowledge, and subject matter-specific pedagogical knowledge. (cf. also Gudmundsdottir and Shulman 1987, 54–55.)

This old idea of pedagogical reduction of factual content for the purposes of teaching is known in the traditional German *Didaktik* as *Fachdidaktik*. The modern view of *Fachdidaktik* takes into consideration all the factors in the teaching-learning process from the content point of view. It was Ch. Helwig who as early as 1619 made a distinction between the common aspects of teaching (*didactica generalis*) and the content aspects of teaching (*didactica specialis*) (Knecht-von Martial 1985, 17–28). The idea, however, in spite of the use of different language, has always been known to parents and teachers. In any case, this comparison between pedagogical content knowledge and *Fachdidaktik* could offer useful knowledge to both sides.

The renaissance of content has aroused the idea of comparing the erudition-centered *Didaktik* with the new conception of research on teaching. Stephan Hopmann (1992) as well as Gudmundsdottir and Grankvist (1992) have already made a start in this respect. The latter also say that the new trend had nothing to do with the European *Fachdidaktik* (1992, 185). Although the idea looks the same there are essential differences.

Looking at Shulman's content knowledge and pedagogical content knowledge it is clear that the focus is on the substance that is the content in the instructional process. The introduction of these concepts has brought about lively discussion in the journals. When looking at this discussion more precisely, it is noticeable that the focus is not exactly on the substance or subject matter but on the structural analysis of this substance. What is presented is a reflection on what kind of elements there may be in the specific content. Frank Achtenhagen (1992, 316) remarks e.g. that "... the distinctions are useful: knowledge is regarded as the "subjective" aspect of subject matter and content as "objective"." My suggestion, however, is that the presentation of content is as formal and general as the former focus on students' properties: learning, motivation, achievement, etc. In other words, psychology of education still has a strict hold but from a different point of view from before and the possible paradigm shift is only a change in the themes and topics.

The change is, however, to be seen in the area of curriculum planning and in emphasising the importance of the instructional content in the curriculum. This is to do with cognitivism and action research along with the growing power of the teachers themselves in preparing their own curriculum. But if we compare the pedagogical content knowledge with *Fachdidaktik* on this level we soon notice that there are different kinds of assumptions behind them.

There are, however, only slight principal differences between pedagogical content knowledge and *Fachdidaktik* or between content knowledge and *Fachwissen* if we compare the German models of *Didaktik* with the American way of thinking and leave the erudition-centered *Didaktik* out of this comparison.

Heimann, Otto and Schulz had, in principle, in their *Berliner Didaktik* a very similar conception of the position of content in the curricular or in the instructional process to Shulman. Because their starting point was empirical-analytical there was no exact standpoint according to the substance but only a named category. Content was one central category in the totality of their model and the criteria of selection were brought from developmental psychology and the life situation of the pupils but no direct stand was taken on the selection of subject-matter. Later with the changes produced by Schulz, the model got much of the same characteristics as erudition-centered *Didaktik*. With these changes the position of content changed as well.

Critical-communicative *Didaktik*, however, has a clearly normative overstructure where content is selected with certain value criteria. The same features are found in critical pedagogy in the US but content in this model is not reflected from the viewpoint of structural analysis. The background is openly normative and political, and this is to be seen also in the instructional process itself. Group work and co-operation are the slogans, but the nature of pedagogical content knowledge is general and does not focus on school subjects as much as on the methods.

The curriculum movement brought its own conception of content with educational aims, goals, and objectives. It was structure again that was the guiding principle. Taxonomies stimulated very precise analyses of the psychological content. They also offered a good basis for the presentation of subject matter, but this movement had weaknesses in other respects and that's why it was not possible to build a curricular totality with this idea. The same can be said of cybernetic *Didaktik*, although the level of exactness required was extremely high. Content was given in the curriculum and the method algorithm was based on the conditions of the factors given in the curriculum.

In all these examples the common aspect is the interpretation of content as formal and general that can be further refined in the curriculum and in the teacher's work. This is very understandable because the models are built for all possible situations, subject matter and curricula. The selection

of content is left to practitioners, textbook writers and curriculum makers. The researchers have stayed out of this process because the concept of doing research has not included taking a stand on value questions and schooling policy. Changing the theme to the content of the teacher's thinking or to the cognitive structure of the teacher's thinking does not change the basic assumptions of the research; it remains within the same paradigm. Naturally we get other types of research results and our attention is focused on other kinds of problems, but the philosophy of doing research stays on the same foundation.

Gradually I am coming to my point of how to compare the German *Fachdidaktik* with the American way of thinking about the same problems. The comparison cannot be made by putting content or the analysis of the structure of this content or the typical characteristics of this content side by side. This is only superficial. The various curricula or textbooks can be compared in this way, of course, but if the motive is to compare the whole frame of reference, this is not enough. In the German *Didaktik* the key is German idealism with such names as Immanuel Kant, Friedrich Schleiermacher and Wilhelm Dilthey with many more recent names. We know this as *Geisteswissenschaften* and I have used erudition-centered *Didaktik* as its English equivalent in the area of teaching. The whole comparison can be simplified by putting erudition-centered *Didaktik* on one side and all other models on the other.

One more point must be taken into consideration and it is the purpose for building the *Didaktik* models and the models for research on teaching as well as the conception of curriculum planning. It has already been said that the German *Didaktik* models are built for teacher education and for instructional planning. The various models have a different approach to the selection of content and especially to the normative criteria of this selection. Only the erudition-centered *Didaktik* has a clear stand on this question and that is why it has a close connection with *Fachdidaktik* or pedagogical content knowledge. Research models are general and take no position on value questions, and that is why content is important in research design.

In the erudition-centered *Didaktik* the main task is seen to be to develop a theory of educational content (*Theorie der Bildungsinhalte*). The content of education is selected according to its value in the curriculum and in the instructional process. The decision is always based on tradition and history. It is also dependent on the particular group of students for whom the curriculum is written. As can be seen, the erudition-centered *Didaktik* has its main role in the planning and writing of the curriculum where the decision-making is openly value laden. The selection of content that is at the same time the selection of aims and goals is, however, not pure policy making because the erudition-centered *Didaktik* claims to have educational autonomy and expert knowledge in educational matters. In this system there are both formal educational criteria and clear normative decisions.

Another side of this question is that the same decision-making continues inside the curriculum when teachers select the instructional content, or the textbook writers decide on what is valuable to be transformed from content knowledge to pedagogical content knowledge. This second part is similar to teachers' work in general and in this phase the problem of learning comes to the fore. Erudition-centered *Didaktik* has been criticised for its neglect of learning and method problems in the instructional process. It has been more interested in what is valuable in content and what is worth teaching than controlling how much has been learned. In this respect there has been development in recent years.

The Nordic alternative

Didaktik in the Nordic countries has been educational psychology with an emphasis on the teacher and on the instructional process. The German *geisteswissenschaftliche Didaktik* has been practically

unknown with certain, mainly Danish and Norwegian, exceptions (e.g. Reidar Myhre, Torstein Harbo and Bjorg Gudem). When the educational psychology line and the *geisteswissenschaftliche* line are in contact with each other there are almost always conflicts to be seen. Yet the focus of both approaches is the instructional process, teaching and the teacher, and the curriculum etc. Why is it so?

You can easily note this conflict if some researcher is asked to evaluate the works of the other trend. The representative of the empirical research quite often says that it is not research at all, it is a number of opinions. The hermeneutic says that empirical research is only making notes about something which already exists in practice, but what then. Quite often they speak of technology, meaning thinking without creativity or alternatives.

A very good example of this situation is Wolfgang Brezinka who is said to represent critical rationalism along with Karl Popper's ideas. He divides education into three parts: philosophy of education, education and the practice of education. The first, philosophy of education, is not scientific at all. It is policy making, decision making, opinions etc. Naturally you must have some basis for your opinions but that does not change the essence of it. The practice of education is action and has nothing to do with science or *Wissenschaft*. You can use facts behind your practice but the action itself is not scientific by nature. Only the description, understanding, and explanation of the educational process are scientific.

Consequently, the difference is not in the focus, in the instructional process itself; it is behind the process in its theoretical assumptions. And as it is not possible to combine them, the conflict remains.

In the Nordic countries, with the above mentioned exceptions, the instructional process has been investigated along the empirical paradigm. That is why it is very difficult to make a difference between *Didaktik* and educational psychology. In practice these two subdisciplines have been a combined area with certain emphases partly on one, partly on the other. If someone has claimed the name of *Didaktik* in his/her writings, it has not been the *geisteswissenschaftliche Didaktik*. A good example of this has been the *Didaktik* discussion in Sweden.

In general, we note two perspectives in this discussion. The first line of research concentrates on the macro level, on the societal, economic and political prerequisites of education (Dahllöf, Lundgren, Englund). We cannot say that it does not take the very process into consideration, because Dahllöf and Lundgren have done this kind of research, too. Its emphasis and interpretation of the empirical results has, however, been on the macro level, on the frameworks. Curriculum research is a natural part of this line.

The other line of research concentrates on the other end of the educational process, on the learning of individual students or on their conceptions of this learning (Marton, Svensson, Lybeck, Kroksmark). There is much research in this group on the instructional process itself but, nevertheless, the focus is on a certain part of it. So one could say that both of them have a very important part of the instructional process as their focus but neither of them can be said to concentrate on the totality of the instructional process. And that is the very essence of the general *Didaktik*. At the same time this topic is enormously large and that is why most of the research is done in some sub-area. Accordingly, the totality of *Didaktik* is divided into subdisciplines and naturally research made in these areas is *didactical* research, too.

It is not exceptional to have various schools of thought within *Didaktik*. As a matter of fact, it is more a rule to have different approaches to *Didaktik*. There is, however, a big difference in views of

the bases on which they are considered different. In the German *Didaktik* it is the decision of the philosophical background which determines the different perspective. In the Nordic countries, I think, the differences are not seen through these kinds of lenses although the philosophical base may be different. The various approaches live inside the empirical tradition although there may be a strong emphasis on e.g. phenomenology. Naturally this leads to the comparison of *Geisteswissenschaften* and phenomenology which is not an easy task. In any case the starting point has been within the empirical tradition and the various emphases have emerged gradually alongside the research work.

A Concluding Remark

The erudition-centered *Didaktik* is a very good example of how education is national in a broader international context. The question, however, remains whether it is possible to compare educational systems in different cultures and to transform new ideas from another culture if there is not enough critical appraisal.

Note

Of special interest is that Toivo Laurilehto wrote a dissertation in 1980 “Syklijetjut opetuksessa” (Verbal compound cycles in the classroom teaching situation) following the method of Winnefeld.

References

- ACHTENHAGEN, FRANK (1992) The Relevance of Content for Teaching-Learning Processes. In OSER, FRITZ K., ANDREAS, DICK, JEAN-LUC PATRY. 1992. *Effective and Responsible Teaching*. San Francisco: Jossey-Bass: 315–328.
- BLANKERTZ, HERWIG (1975) *Theorien und Modelle der Didaktik* (9., verarbeitete und erweiterte Auflage). München: Juventa. (1st edn. 1969)
- CONNELLY, F.M., O. LANTZ (1985) Definition of Curriculum. In HUSÉN, TORSTEN, T. NEVILLE POSTLETHWAITE (eds.) 1985. *The International Encyclopedia of Education*. Oxford: Pergamon Press: 1160–1163.
- DOLCH, JOSEF. (1959). *Lehrplan des Abendlandes. Zweieinhalb Jahrtausende seiner Geschichte*. Ratingen: Aloys Henn.
- DOYLE, WALTER. (1993). Curriculum Theory in the Preparation of Teachers. *Paper Presented at the Symposium: Didaktik and or Curriculum*, Kiel, IPN, 5–8 October 1993.
- DOYLE, WALTER, IAN WESTBURY. (1992). Die Rückbesinnung auf den Unterrichtsinhalt in der Curriculum- und Bildungsforschung in den USA. *Bildung und Erziehung* 45, 137–157.
- DUNKIN, M. (1988). Comparative Studies in Teaching and Teacher Education. In POSTLETHWAITE, T. NEVILLE (ed.) (1988). *The Encyclopedia of Comparative Education and National Systems of Education*. Oxford: Pergamon Press. 1988, 60–66.
- DUNKIN, MICHAEL, J. BRUCE, J. BIDDLE. (1974). *The Study of Teaching*. New York: Holt, Rinehart and Winston.
- FREY, KARL. (1971). *Theorien des Curriculums*. Weinheim: Beltz.
- GAGE, N.L. (1963). Paradigms for Research on Teaching. In GAGE, N.L. (ed.). *Handbook of Research on Teaching*. Chicago: Rand McNally: 94–141.
- GAGE, N.L. (1978). *The Scientific Basis of the Art of Teaching*. New York: Teachers College Press.
- GAGE, N.L., DAVID BERLINER. (1984). *Educational Psychology*. Third Edition. Boston: Houghton Mifflin.
- GUBA, EGON G. (ed.) (1990). *The Paradigm Dialog*. Newbury Park: Sage.
- GUDMUNDSDOTTIR, SIGRUN, LEE S. SHULMAN. (1987). Pedagogical Content Knowledge: Teachers’ Ways of Knowing. In STROMNES, ÅSMUND L., NILS SOVIK. (1987). *Teachers’ Thinking. Perspectives and Research*. Tapir: 51–83.
- GUDMUNDSDOTTIR, SIGRUN, ROLF GRANKVIST. (1992). Deutsche Didaktik aus der Sicht neuerer empirischer Unterrichts- und Curriculumforschung in den USA. *Bildung und Erziehung* 45, 175–187.
- GUNDEM, BJORG B. (1992). Didaktik in Skandinavien. *Bildung und Erziehung* 45, 189–200
- GUNDEM, BJORG B. (1992). The Place of Didactics in Curriculum in Scandinavia. *Paper Presented at the Annual Meeting of the American Educational Research Association, AERA, April 20–24, 1992 San Francisco*.

- GUNDEM, BJORG B. (1992). Notes on the Development of Nordic Didactics. *Journal of Curriculum Studies* 24, 61–70.
- HAMEYER, UWE, KARL FREY, HENNING HAFT (Hrsg.) (1983). *Handbuch der Curriculumforschung*. Weinheim: Beltz.
- HARBO, TORSTEIN. (1986). Didaktiska teman i vårt århundrade. In HARBO, TORSTEIN, TOMAS KROKSMARK. *Grundskolans didaktik*. Lund: Studentlitteratur: 49–95.
- HEURSEN, GERD. (1986). Didaktik, allgemeine. Fachdidaktik. In HALLER, HANS-DIETER, HILBERT MEYER (Hrsg.) (1986). *Ziele und Inhalte des Unterrichts. Enzyklopädie Erziehungswissenschaft, Band 3*. Klett-Cotta: 407–415, 427–439.
- HIRST, PAUL (ed.) (1983). *Educational Theory and Its Foundation Disciplines*. London: Routledge & Kegan Paul.
- HOPMANN, STEPHAN. (1992). Starting a Dialogue. Roots and Issues of the Beginning Conversation between European Didaktik and the American Curriculum Tradition. *Paper presented at the Annual Meeting of the American Educational Research Association in San Francisco, April 1992*.
- HOPMANN, STEPHAN, RUDOLF KÜNZLI. (1992). Didaktik-Renaissance. *Bildung und Erziehung* 45, 117–135.
- HOPMANN, STEPHAN, KURT RIQUARTS. (1992). Didaktik – didaktikk – didactics. *NORDEUROPA-forum Nr.1, 1992*, 21–24.
- HOSFORD, PHILIP L. (1973). *An Instructional Theory: A Beginning*. Englewood Cliffs: Prentice-Hall.
- JACKSON, PHILIP W. (1992). Conceptions of Curriculum and Curriculum Specialists. In JACKSON, PHILIP W. (ed.). *Handbook of Research on Curriculum*. New York: Macmillan: 3–40.
- KANSANEN, PERTTI. (1987). The Curriculum as a Factor Directing Actual Teaching In MALINEN, PAAVO, PERTTI KANSANEN (eds.). *Research Frames of the Finnish Curriculum*. Research Report 53. Department of Teacher Education, University of Helsinki: 47–68.
- KANSANEN, PERTTI. (1995) (ed.), *Discussions on Some Educational Issues VI* Research Report 145. Department of Teacher Education, University of Helsinki. (ED394958), 97–118.
- KNECHT-VON MARTIAL, INGBERT. (1985). *Geschichte der Didaktik. Zur Geschichte des Begriffs und der didaktischen Paradigmen*. Frankfurt am Main: R. G. Fischer.
- KLAFKI, WOLFGANG. (1974). Curriculum – Didaktik. In WULF, CHRISTOPH (Hrsg.) (1974). *Wörterbuch der Erziehung*. München: Piper: 117–128.
- LAZERSON, MARVIN. (1990). Research and Teacher Education in the American University. In GUMPERT, EDGAR B. (ed.) (1990). *Fit to Teach: Teacher Education in International Perspective*. Center for Cross-cultural Education. College of Education, Georgia State University. Atlanta, Georgia: 65–84.
- MENCK, PETER. (1993). Some Remarks on Research in Education and Didactics in Germany. *Paper Presented at the Symposium: Didaktik and or Curriculum*, Kiel, IPN, 5–8 October 1993.
- PATRY, JEAN-LUC. (1992). Didaktik und Curriculum. Konfrontation – Koexistenz – Komplementarität. *Bildung und Erziehung* 45, 213–223.
- REISSE, WILFRIED. (1975). Verschiedene Begriffsbestimmungen von ‘Curriculum’: Überblick und Ansätze zur Präzisierung. In FREY, KARL (Hrsg.) 1975. *Curriculum – Handbuch I–III*. München: Piper: 46–59.
- REYNOLDS, A. (1992). What Is Competent Beginning Teaching? A Review of the Literature. *Review of Educational Research* 62, 1–35.
- ROBINSON, SAUL B. (1967). *Bildungsreform als Revision des Curriculum*. Neuwied: Luchterhand.
- RÖHRS, HERMANN. (1969). *Allgemeine Erziehungswissenschaft*. Weinheim: Beltz.
- RÖHRS, HERMANN. (1993). Die Reformpädagogik (Progressive Education) in den USA und ihr Einfluss auf die reformpädagogische Entwicklung in Deutschland. *Pädagogische Rundschau* 47, 3–27.
- SHULMAN, LEE S. (1986a). Paradigms and Research Programs in the Study of Teaching: A Contemporary Perspective. In WITTRICK, MERLIN C. (ed.) 1986. *Handbook of Research on Teaching*. Third Edition. New York: Macmillan: 3–36.
- SHULMAN, LEE S. (1986b). Those Who Understand: Knowledge Growth in Teaching. *Educational Researcher* 15 (2), 4–14.
- SHULMAN, LEE S. (1988). Disciplines of Inquiry in Education: An Overview. In JAEGER, RICHARD M. (ed.) *Complementary Methods for Research in Education*. Washington, DC: AERA: 3–58.
- SJÖSTRAND, WILHELM. (1967). *Education As An Academic Discipline*. Acta Universitatis Upsaliensis C. 12.
- SMITH, B.O. 1987). Teaching. In DUNKIN, M. (ed.). *The International Encyclopedia of Teacher and Teacher Education*. Oxford: Pergamon Press: 11–15.
- TENORTH, HEINZ-ELMAR. (1988). *Geschichte der Erziehung. Einführung in die Grundzüge ihrer neuzeitlichen Entwicklung*. Weinheim: Juventa.
- TIBBLE, J.W. (1966). The Development of the Study of Education. In TIBBLE, J.W. (ed.). *The Study of Education*. London: Routledge and Kegan Paul: 1–28.
- TRAVERS, ROBERT M.W. (1978). *An Introduction to Educational Research*. Fourth Edition. New York: Macmillan.
- WINNEFELD, F. (1957) Pädagogischer Kontakt und Pädagogisches Feld. München/Basel: Ernst Reinhardt.

- WULF, CHRISTOPH. (1977). *Theorien und Konzepte der Erziehungswissenschaft*. München: Juventa.
- ZIMMERMANN, WERNER. (1986). Ist die Stunde des Curriculum vorbei? Wege und Irrwege der Curriculumentwicklung in der Bundesrepublik Deutschland. In TWELLMANN, WALTER (Hrsg.) *Handbuch Schule und Unterricht*. Band 8.1. Düsseldorf: Schwann:, 107–121.

University of Helsinki
PO Box 38 (Ratakatu 6A)
FIN-00014
Finland
Tel.: +358 9 191 28137; +358 9 492 055
Gsm +358 40 5619458
Fax: +358 9 191 28114
E-mail: pertti.kansanen@helsinki.fi

