

Didaktik and/or Curriculum: Basic Problems of Comparative Didaktik

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[...] an American coming to Europe for education, loses in his knowledge, in his morals, in his health, in his habits, and in his happiness. (Thomas Jefferson, 1785)

With the increasing interdependence and harmonization of education systems and achievement expectations, the necessity is growing to cooperate in instruction research and curriculum development. Here, national borders and differences need to be overcome. A difficult problem, though hardly considered so far, results from the differing attitudes toward instruction, its planning, and its implementation. There are two basic models representing two ideals: the Anglo-Saxon tradition of curriculum studies and the Central and North European tradition of Didaktik.² Both attitudes exist in such a variety of forms that neither can easily be reduced to a single basic pattern. Yet in spite of this variety, each side operates with certain common presuppositions about the relationship between curriculum and instruction, which create a clear dividing line. These differences lie above all in contradicting traditions of teacher education (Didaktik-centered versus method-centered) and school supervision (centralized versus local). Adoption of instruction material or international achievement comparisons that do not take these differences and their consequences into consideration are bound to lead to misinterpretations. Astonishingly, there has never been a systematic comparison of these two strands of tradition with regard to possible consequences for international cooperation and understanding. Only in Scandinavia and a few West European countries have both variants coexisted for many years (cf. Gundem, 1992; Kansanen, 1994).

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² This spelling will be used throughout to emphasize the Central and Northern European connotations of the concept as used here.

This is the point of departure for the work of the international project *Didaktik meets curriculum*. The aim of the project is to improve communication between the traditions by mediating personal encounters, by translating classical texts, and by initiating comparative studies of the history and current state of Didaktik. Educationalists involved in the project include, apart from the authors, Walter Doyle (Tucson/Arizona), Björg Gundem (Oslo), Sigrun Gudmundsdottir (Trondheim), Rudolf Künzli (Aarau), Ian Westbury (Champaign/Illinois), Peter Menck (Siegen), and Roland Lauterbach (Leipzig). In addition, guests from Australia, Denmark, Germany, Finland, Canada, Norway, Sweden, Switzerland, the United Kingdom, and the United States have taken part in the group's meetings.³ One such meeting, a symposium at the IPN, Kiel, in October 1993, sponsored by the Deutsche Forschungsgemeinschaft (DFG German Research Council), produced the contributions brought together in this book.

This introduction sets out to sketch a few of the problems of understanding that complicate the internationalization of Didaktik, which have been discernible in the project work so far. We have chosen a historical and systematic approach, proceeding from the central problem of this discourse, viz., talking about Didaktik without having in advance a common conception of what Didaktik is and what makes it differ from curriculum.⁴

I

For the past 200 years or more, transatlantic relationships have influenced the international history of Didaktik (cf. Barrowman, 1956; Fraser & Brickman, 1968; Goldschmidt, 1983). Yet the culture of mutual observation developed since Thomas Jefferson, John Quincy Adams and Alexis de Tocqueville has

³ It would have been desirable to include other cultures and perspectives, such as the Romance tradition and the discussions now commencing in East Europe, but this was not feasible within the staffing and budget of the project. Excellent introductions to the traditions of the German–American relationship are given by Goldschmidt (1983) and Dunkel (1990).

⁴ The statements attributed by name but without reference to a publication are taken from discussion contributions at the Kiel symposium. The participants were asked to corroborate the quotations. Nevertheless, it must be emphasized that these are primarily discussion comments and not elaborated theorems.

not resulted in a discipline of comparative Didaktik to explain the causes and characteristics of cultural differences or at least to give reasons for the problems of transfer. This is one of the most astonishing shortcomings of comparative educational science, which has flourished in recent years but has only brushed Didaktik, for example, through comparative analyses of the origin of school systems (e.g., Adick, 1992; Archer, 1979; Melton-Horn, 1988; Müller, Ringer & Simon, 1987; Schleunes, 1989), of state-run curriculum planning (*Lehrplan*; such as Haft & Hopmann, 1990; Holmes & McLean, 1992) or—closer to the everyday matters of schooling—the time structure of school and instruction (e.g. Ben-Peretz & Bromme, 1990).

This abstinence is in many respects understandable. The concept of Didaktik in its comprehensive significance, intertwining action and reflection, practice, and theory has never found particular acceptance in the Anglo-Saxon countries. The term didactics, generally avoided in the educational sciences, refers to practical and methodical problems of mediation and does not aim at being an independent discipline, let alone a scientific or research program. And it is not only comparative Didaktik, which can only be expressed in English with a variety of explanations. There is no direct English translation of one of the keywords of *Didaktik*, *Unterricht* (generally translated as instruction⁵), nor for the comprehensive meaning of the word *Pädagogik*. The terms commonly used to translate these, instruction and pedagogy, reflect only those aspects referred to in German as *pädagogisch-psychologisch*. *Bildung* may just be translated as education, following Locke and Herder, but the concepts expressed by composite nouns such as *Bildungstheorie*, *Bildungsgehalt*, *Bildungssinn*, or expressions such as *Bildung und Erziehung*, defy this simplicity.⁶ Conversely, German use of the term curriculum only rarely coincides with the many facets of the AngloAmerican concept. The translation of curriculum studies as *Curriculumforschung* (curriculum research), *Curriculumtheorie* (curriculum theory), or *Curriculumentwicklung* (curriculum development) emphasizes single aspects, when it is the interaction of such aspects that makes the significance of this field as a whole comprehensible as the functional equivalent of

⁵ By Peter Menck as classroom.

⁶ *Bildung* refers to the process and product of personal development, guided by reason. The formation by external influences (parents, teachers, etc.) is expressed by the noun *Erziehung*, which is also generally translated as education.

Didaktik. And the Anglo-Saxon term teaching, for example, has a great many more connotations than the translation *Lehren* can evoke. Similar phenomena can be observed in other languages. In Scandinavia, for example, the concepts of teaching and learning are expressed by one word, *laere*, which may admittedly correspond to the concept of animated interaction propagated by Grundtvig and others but which renders basic historical didactical experience practically untranslatable. In short, the linguistic proliferation that has taken place since Comenius' day means now that central didactical contents cannot be translated word for word without misunderstandings arising.⁷

What applies to the wider concepts also applies to the terms for individual learning achievements and teaching contents. In the practice of comparative empirical research, the true scope of the differences is rarely addressed. Test scores or curricular modules are compared as though the same test results or the same headings for individual contents ("fractions," "acoustics") and whole subjects ("religion," "science") indicate comparable experiences, despite widely differing conditions of process or result (cf. e.g., Britton, 1994; Howson, 1991; McKnight, 1994; Meyer, Kamens & Benavot, 1992; Robitaille et al., 1993; Schmidt, 1994; Steiner, 1980; Travers & Westbury, 1989). This may be justifiable in individual cases, but in complex studies it induces doubts as to the validity of the conclusions (cf. e.g., the controversies Baker, 1993(a); Westbury, 1992, 1993). The rare attempts to reach at least some sort of historical or systematic conclusions about the linguistic differences in the science of education (cf. e.g., Brezinka, 1971; Hamilton, 1989; Richmond, 1975) have clearly shown that any comparative didactical research above and beyond the development of empirical instruments requires hermeneutic elucidation and careful definition of concepts in order to foster understanding about the similarities and differences in school culture: what exactly are we talking about when comparing syllabi, instruction sequences, and results (cf. Hopmann, 1993)?

An added difficulty is that comparative Didaktik is not a study of monolithic cultures, which can be differentiated on the basis of a small number of national characteristics, but of a complex variety of positions and

⁷ This emerges clearly in the comparative translations of Klafki's "Didactical Analysis" (1958), which the project has produced (English by Gillian Horton-Kruger, Usingen; Norwegian by Thorleif Gundem, Oslo).

directions, concepts and theories, which cannot be delineated according to national borders or simply decoded as “national cultures” in the manner of the 19th century. Strictly speaking, any analysis should view the whole tableau (Schriewer, 1984) of possible factors and canons of knowledge, whereby at the outset the object of the comparison would be as uncertain as the conditions determining it (cf. Hopmann & Haft, 1990).

II

“Didaktik and/or curriculum” is, admittedly, not a new topic. A little more than a century ago, for example, in the midst of a phase of heated discussion over the crisis in the United States’ educational system, a well-known Boston educationalist, John Tilden Prince (1844–1916), published a comprehensive study entitled, “Methods of Instruction and Organization of the Schools of Germany for the Use of American Teachers and Normal Schools” (1892). Prince knew his subject. After normal school he had attended Harvard, and from there he went to study in Germany for several years, as did so many of his later famous colleagues (like George Herbert Mead). After obtaining his doctorate in Leipzig, he returned to the United States and worked as a teacher, as a head teacher, in the schools’ inspectorate, and in teacher education. The purpose of his book was to improve the American system by German example, mainly through adopting the German approach to teaching. Although the word Didaktik was not used at all in more than two hundred pages, it was Didaktik in all its variations that was the subject of the work: as teaching theory, school research, planning aid, and instrument for practice. “It is influence of this kind,” wrote Prince, “which our American schools most need” (Hopmann & Haft, 1990, p. 231).⁸

Prince was not alone in his recommendation of the German system. At that time, it was popular to refer to German examples, from Hegel and Herbart to Willmann and Wundt (cf. Cruikshank & Knoll, 1994; Dunkel, 1990).

⁸ John Tilden Prince speaks of methods, not of didaktik, whereby (and this is where the transfer problems begin) the method concept is apparently comprehensive, i.e., without the restriction to the execution of instruction that gained currency with the division of work with didaktik, which developed in Germany during the 19th century. For Prince, following 18th century normal school pedagogy, the purpose, style, and content of instruction are also questions of method.

William Harris justified his school reforms with reference to Hegel; Josiah Royce presented Dilthey's pedagogical writings at Harvard; John Dewey was involved in the founding of a Herbart Society (today the National Society for the Study of Education); others added writings by Herbartians and about Herbartian *didaktik*, probably the most influential pedagogical tendency in the United States around the turn of the century. The earliest chairs of pedagogy (starting 1873 in Iowa) were expressly dedicated to *didaktik*, while for many a textbook for teacher education was little more than the Americanized edition of relevant works by the likes of Rosenkranz, Ziller, or Rein, leading German educators of that time. John Tilden Prince could thus hope with some justification that he was contributing to the apparently unstoppable *Didaktization* of teaching and teacher education in the United States.

Just 20 years later, German sources and models were likely to be mentioned only in passing, and after the outbreak of the Great War at the latest, any mention would be tinged with guilt. *Didaktik* (and anything derived from it) disappeared from pedagogical discourse so rapidly and so completely that today even specialized works of reference in teacher education or curriculum development do not include *Didaktik* in their index, not even if they mention Herbart or American teacher education in the 19th century.⁹ *Didactics* took on a restricted meaning, referring to method and practical considerations only. It acquired pejorative connotations: *didactical* came to mean “inclined to teach or lecture others too much” or “teaching or intending to teach a moral lesson” (Webster, 1989). The virtually complete erasure of all Central European influences and models gave the rise and fall of *Didaktik* something of a ghost story (Dunkel, 1970).

It is beyond the scope of this paper to trace the reception of *Didaktik* in a comparative history, recapitulating all the pedagogical, cultural, political, and other factors that contributed to the failure of this transfer attempt. However, a brief comparison of the most important places and structures in the production and dissemination of didactical knowledge and the image of the teaching profession stemming from this can indicate some of the

⁹ It would be unfair to single out examples here. An examination of textbooks in use for prospective teachers at Chicago University in spring 1994 revealed no exceptions to this rule! In spite of a few more recent studies (for a synopsis, cf. Cruikshank & Knoll, 1994), no fundamental revision is in sight.

fundamental differences that made it difficult for Didaktik as a Central and Northern European phenomenon to stake its claim in the universities and schools of the United States around 1900 (see table below).¹⁰

Until well into the 19th century, teachers not only in the Anglo-Saxon countries were predominantly self-taught in terms of pedagogy (cf. Herbst 1989 (a); Sedlak 1989). According to Prince (1892), a good three-quarters of all teachers in the United States at that time had no formal pedagogical training. The second most popular form of preparation for a teaching career was the normal schools, though this term covered a wide variety of approaches (for a synopsis, cf. Jenzer, 1991, pp. 259–301; Hopmann in preparation). The only common feature was the intention to themselves embody—as a “living curriculum”—the instruction aimed at in the education of the teachers as a “living curriculum.” Whereas almost all normal schools in Central and Northern Europe were replaced by seminars in the first half of the 19th century, they continued to dominate teacher education in the United States until the early 20th century (cf. Herbst, 1989b; Johnson, 1989). American normal schools did not concentrate on an introduction to teaching but on improving the knowledge to be taught later on. Pedagogical concerns were peripheral. Anything more than brief method courses and a little psychology was rare and became even more so toward the end of the 19th century, when the normal schools were practically no longer distinguishable from schools of the same level not specifically preparing for the teaching profession (cf. Herbst, 1989b; Newell, 1900). From the beginning of this century, most normal schools were subsumed into liberal arts colleges (cf. Goodlad, 1990; Sedlak, 1989), a trend that conformed with the interests of the majority of their clientele. Only a minority actually entered teaching after finishing the schools, and those who did seldom remained teachers for the whole of their working lives.

For the vast majority, normal schools were a low-cost springboard into careers outside teaching (cf. Herbst, 1989b; Rury, 1989). The picture was quite different among those who attended the seminars of Continental Europe

¹⁰ The concept of image is used here with reference to organizational sociology (Morgan, 1986) and differs from the usage common in teacher thinking research, which uses the term to characterize individual concepts and interpretations (cf. e.g., Hannay & Seller, 1990). Thus, analysis of images of teaching also reflects the various approaches that are the object of our study.

(cf. Sauer, 1987; Schmale, 1991). A student at a seminar wanted, as a rule, to be a teacher and nothing else. Ninety percent of the graduates of the seminar in Tondern, for example, which was established in 1789, spent the whole of their working lives as teachers (cf. Lampe, Larsen & Nyholm, 1963, pp. 27–29). At the end of the 19th century, Prince regarded this loyalty to the profession as one of the fundamental points at which the systems differed. In Germany, he maintained, one became a teacher for life; in the United States, few remained teachers for more than 4 years (1892, p. 219).¹¹

Types of Institutionalizations of Didactic Cultures (Hopmann, 1994b)

Place	Type	Image*
1. School (as place for teacher education)	Training on the job	Teaching as “Autodidaktik”
2. Normal School	a) basic course b) advanced course c) training course	Teaching as imitation Teaching as application Teaching as method
3. Seminar	Advanced course plus...	Teaching as a way of living
4. University, College	a) preparation of administrators b) preparation of educators c) preparation of second. teachers d) counseling, research & development	Teaching as service Teaching as educating Teaching as introduction Teaching as planned behavior

¹¹ The curricular differences between seminars and normal schools are debatable. The difference was not at all clear to contemporaries, at least to outsiders. John Quincy Adams (1800) reports, for example, on Felbiger’s institutions in Sagan, Glatz, etc., under the heading of seminars, and Prince (1892) on the Prussian seminars in the late 19th century under the heading of normal schools. In practice, the distinction between normal schools and seminars can be made less through the curriculum of teacher education than through the status of the school pertaining to the institution, depending on whether it was a primary place of education and thus a norm of aimed-at school practice or simply an institution where candidates educated elsewhere could practice and, as such, without an independent norm-giving function. Systematically, the decision of normal school vs. seminar is closely bound up with the respective type of curriculum administration. Method-centered curriculum administration was more likely to use normal schools; content-centered administration preferred seminars (cf. Hopmann in preparation).

Place	Type	Image*
5. Administration	a) School administration b) Planning and development c) INSET	Teaching as “Gestaltung”
6. Associations & unions	a) Unions and general associations b) Subject matter associations	Teaching as profession
7. Publishers and producers	a) Publishers b) Other producers	

* Definition, following Gareth Morgan (1986).

The image of teaching as a task for life was closely bound up with the rise of the Seminars but was probably also influenced by the model of the clergy. European teachers were subject to clerical authority from the earliest days of monastic and convent schools until the secularization of the school inspectorate. In the United States, on the other hand, the separation of school and church is arguably the reason why teaching as a vocation did not become the ideal (Doyle & Westbury, 1992, p. 142). Thus, in the American tradition, pedagogy did not first take its place at universities within the field of theology as it did in the German tradition, still clearly reflected in Schleiermacher’s lectures. Likewise, the American secular tradition lacks the conception of teaching as lifelong service (God and Man). In the academic training of future tutors (*Erzieher*) or later of subject teachers at higher schools, however, the organization was much the same on both sides of the Atlantic (Rury, 1989), with the exception that subject teachers were not required to perform the year of teaching practice (*Referendariat*) compulsory in Prussia from the 1820s.

The differences in the education of teachers corresponded to the differences in the work of teachers, characterized by the differences in the systems of curricular control, as Prince himself observed. In the United States, he said, plans of study were often drawn up by local committees “made up of men, who can run a farm or factory, but have no special fitness to direct teachers” (1892, p. 223). “Instead of these doubtful guides,” he recommended, “there should be a general plan for each grade of school, made and sanctioned by high professional authority and authorized of every school in the state... Thus we should follow in the main the policy of Germany, whose plans of

study may be said to be the results of the best educational thought of the state" (Prince, 1892, p. 224). Prince felt curriculum administration in the German sense to be, "on the one hand so well defined as to make teachers' duties clear, and on the other hand so unrestricted to leave much freedom and independence of action" (*ibid.*). The history of the German tradition, the space between central curriculum making and local instruction plans may be regarded as the birthplace of modern *Didaktik* (cf. Künzli, 1986). Here lie the roots of didactical administration, a force which can hardly be overestimated in its influence on the self-identity of the German teaching profession (cf. Hopmann, 1988). From Dörpfeld's first curriculum theory (1872) to Rein's first theory of curriculum development (1897) to contemporary models of *Didaktik*, there can hardly have been a didactical conception that does not determine the task of the teachers as interpretation, explication, transposition, etc., of predetermined curriculum making.

Closely bound up with the differences in curricular control were the differences in the use of teaching materials. It was no coincidence, which made Prince judge the use of schoolbooks in Germany as wanting:

Few text-books are used in the elementary schools of Germany, - fewer I believe, than is good for the pupils, -first, because a knowledge of the use of books and a good habit of using them are most valuable to people of any walk of life, and secondly, because a proper use of them prevents too great dependence upon the teacher [...]. (Hopmann, 1988, p. 236).

Prince recognized the close connection between the repeatedly emphasized position of the teachers and the lesser significance of textbooks in Germany, but he overlooked the fact that the strong position of the textbook in the American education system stemmed from the role of the books themselves in the selection of subject matter. Whereas in the United States the books represented the selection of subject matter, in the Prussian German system the choices were made in the interplay between centralized curriculum making and instruction planning.¹² If this kind of control is complemented or replaced by obligatory textbooks, precisely those areas of scope are lost that Prince wishes for the teachers (Ben-Peretz, 1990). On the other hand,

¹² In principle, this has not changed [cf. Apple/Christian-Smith 1991, Cherryholmes 1988, Riquarts 1990, Woodward/Elliot/Carter 1988].

Prince remarks upon another side effect when instruction is controlled by plans issued to teachers rather than prescribed books: the learners seldom, if ever, work for themselves because of the “constant talking” of the teachers (Ben-Peretz, 1892, p. 236).

For the comparison of the two didactical cultures, we must now focus on the uneven presence of the various forms of institutionalization and on the filter effect of their images of teaching for didactical perception. Here we see that the education system of the United States had no satisfactory equivalent of the types of institutionalizations that John Tilden Prince cites as characteristic for Germany and that modern didactical research also rates as constitutive for the specific identity of the Didaktik tradition (in particular the seminar, but also the close connection with theological training and the Didaktik associated with centralized curriculum making). There were, thus, no appropriate “incubators” where Didaktik could develop as teachers’ specific knowledge of control and interpretation. Instead, forms of institutionalization predominated in which teaching itself was not seen to require specific preparation. At the same time, the low status of the art of teaching associated with this view fueled the development of curriculum research over the following decades as an independent entity far removed from school practitioners, producing decisions that were deemed beyond the scope or even ability of the local level (Kliebard, 1986; Rugg, 1926). The very incompatibility of the institutions guaranteeing Didaktik prevented a transfer from taking place.

An example of the long-term consequences of these transfer problems is the latest dispute over the project method. After the demise of interest in Didaktik in the United States at the beginning of the 20th century, elements of the European tradition could only remain in the American context if divorced from their didactical origins beyond all recognition and transformed into methods, such as the project method (cf. Frey, 1979; Knoll, 1991). With regard to the use of the project concept in the American reception of European project traditions around 1900, project historians now insist on the methodical and technical character of the project and declare its extension in Germany into a school-spanning instruction principle, with reference to Dewey and Kilpatrick, to be a misunderstanding (cf. Frey, 1993; Knoll, 1993). Even in the laboratory school of Chicago University, it is argued, the project method never had this status. On the other hand, those who did not interpret the project from the point of view of its reception but as an element in the tradition of

reform pedagogy or beyond that of the Enlightenment cling to their view of the project, influenced by reform pedagogy, as a possible organizational form of the whole of school life (cf. Bastian & Gudjons, 1991, 1993; Duncker, 1993; Hansel, 1993).

III

The exchange of the project method took place at the turning point in transatlantic relations. It began when German pedagogy was still regarded as exemplary and made a U-turn when American pedagogy began to dominate international discourse, though without the transfer at any time becoming the object of extensive research. It is thus little wonder that the German reception of the curriculum concept ran into difficulties similar to those experienced by Didaktik in the United States three-quarters of a century earlier. Curriculum, too, had to struggle with the shift in meaning that invariably arises when concepts are recontextualized, even if all participants strive to avoid this and declare their efforts successful.

At the very beginning there was the problem of assignment. As curriculum research was hailed as something of a cure-all for a variety of technical, methodological, and theoretical shortcomings in conventional general Didaktik, it was an obvious temptation to summarily replace everything that had been dealt with under the heading of Didaktik under the new heading of curriculum. Take a definition such as the following, which presents curriculum as the answer to the question:

how can learning situations be developed, implemented and evaluated, which in the horizon of their societal and objective environment and of the individual self-interpretation of the learners are justified and at the same time optimally guarantee the self-development of all concerned (...) before, during and after the envisaged learning process? (Frey, 1980, p. 45, our translation).

In this case, from the point of view of the object, no purposeful line can be drawn to distinguish curriculum from Didaktik. Thus, everything that has anything to do with instruction could be subsumed under both curriculum and Didaktik. Indeed, the German curriculum discussion of the 1970s and early 1980s did not systematically distinguish between general Didaktik and curriculum research. "Curriculum" was used as a replacement

or modernization of “Didaktik” at all conceivable levels of research and development (for many of these, cf. Frey et al., 1975; Hameyer, Frey & Haft, 1983). The subsumption of school theory (Adi-Amini, 1976) or general Didaktik (Hameyer, 1983) under curriculum theory was then consistent, for all that it was “without perspective” (Klafki, Otto & Schulz, 1977, p. 8) and represented the expression of “conceptual confusion,” where “no reasonable explanation can be given whether Didaktik is part of curriculum or curriculum part of Didaktik or both are identical” (Reich, 1977, p. 396, our translation).

In practice, the claim to sole representation was often confined to presenting curriculum development as a latter-day version of centralized curriculum making. This made it easier to deal with the challenge of curriculum research as a problem of the inner-modernization of Didaktik and to restrict its legitimacy to a qualification of conventional methods of curriculum development (cf. Blankertz, 1973; Reich, 1977). In a few cases only was there an attempt beyond non-binding pilot projects to structure study plans along the lines of US curriculum models (cf. Westphalen, 1973). No consideration was given to the difference, already noted by Prince, between a planning system based on local adaptation of preproduced curricula and a system in the Prussian-German tradition, constitutively bound to a differentiation in the responsibilities between central and local planning. It was, therefore, no coincidence that the transfer of curricular planning categories to a centrally controlled curriculum system ended with the leveling out of the scope for action and innovation incorporated in this difference (cf. Hopmann, 1988).

Thus, the curriculum wave washed only over one field of Didaktik (cf. Menck, 1983). Other traditional core fields of Didaktik, such as theory of instruction (*Unterrichtslehre*), remained largely untouched unless by the threat that perfected curriculum development could one day produce teacher-proof curricula and make these fields redundant. As also the practice of curriculum development and teacher education had remained largely unchanged, almost all the projects commenced under the heading curriculum could be easily rededicated when the Didaktik renaissance began in the 1980s (cf. Hopmann & Künzli, 1992). This was admittedly helped by the fact that the whole arsenal of theories and methods introduced by the curriculum movement in the 1960s and 1970s had been assimilated

into Didaktik by the numerous faculties and institutions all dealing independently with Didaktik (cf. for a summary Keck, Kohnlein & Sandfuchs, 1990; Achtenhagen, 1992).

An analogous integration of the Didaktik concept into the Anglo-Saxon discourse was not observable, as we have already mentioned. However, from the 1960s onwards and particularly in the 1980s, the relationship between Didaktik and curriculum was extensively discussed in the Nordic countries (cf. for a summary Gundem, 1992; Hopmann & Riquarts, 1992), the treatment varying with national tradition. In Sweden, where Didaktik had practically disappeared for decades in favor of an orientation to Anglo-Saxon models, Didaktik was rediscovered as a concept to mediate between curriculum development and instruction research. In Norway, where Didaktik was firmly rooted as an academic field beside instruction research, curriculum research was mostly treated as a subtopic of Didaktik. If there was no institutionalized precedent, as in Finland, a relationship was created that named the organization and planning of instruction curriculum, with Didaktik referring to its interpretation and implementation. The Finnish definition is similar to the view widely held in Germany that Didaktik deals mainly with instruction itself, while curriculum primarily covers study plans, schoolbooks, instruction concepts, etc. (Peter Menck).

The view that American-style curriculum research deals academically with basically the same problems as German curriculum development is not least due to the academic division that has developed since the beginning of this century in the United States between content-related curriculum research on the one hand, coming up with materials and policy recommendations, and psychology-oriented pedagogy on the other, responsible for teaching and learning research (cf. Doyle & Westbury, 1992). Curriculum research was presented as a producer of teaching sequences, instruction materials, school books, etc. Instruction research, the scientific analysis of teaching and learning processes, tended to be left to pedagogy. Curriculum research in the United States was therefore met with reproaches similar to those leveled here at curriculum development following the division that evolved in the post-war years between more humanities-oriented (*geisteswissenschaftlich*, also: human science) Didaktik and empirically based pedagogical instruction research. It was felt curriculum research (or curriculum development) helped planning and legitimation, but it lacked empirically

backed knowledge of what actually happened in instruction where these study plans/curricula were used. In the 1970s and 1980s, curriculum research reacted with a veritable explosion in the number of innovation and implementation studies, although these, with a few exceptions, continued to premise that instruction can be scientifically controlled through planning (cf. Cuban, 1990, 1992; Huberman & Miles, 1984; Pullan & Miles, 1992; Levine, 1980; Miles et al., 1985). Their transfer to the context of centralized curriculum making thus continues to rouse fears that the aim is to map out and direct school practice even more (cf. Clune, 1993; Granheim, Kogan & Lundgren, 1990). Compared with these transfer problems, communication in empirical instruction research was possible with relatively little interference. The parallels in the division of work in this field, the absence of commitment to the structures of planning, supervision, and instruction, and the existence of a broad base of shared methodological convictions meant that cross-national exchange was never particularly hindered. It is, therefore, easy to understand why at the Kiel symposium, linguistic difficulties were judged “rather less than expected” (Andreas Krapp) by the empirical instruction researchers but “almost insuperable” (Hilbert Meyer) for the translation of general Didaktik.

The conditions for transfer should be changing soon, however. In the United States during the 1980s, the criticism of curriculum research truncated by division was mirrored by a growing criticism of teaching and learning research traditionally dominated by psychology (i.e., pedagogy). Old-style research in this area, it was said, far removed from content and practice, was completely missing the questions of the relationship between teaching and learning and content and how instruction contents could be concretized and implemented by teachers (Doyle, 1986a, 1986b; Shulman, 1986). Both movements have been converging for a few years in research, systematically interrelating curriculum contents and teaching-learning practice (cf. Brophy, 1991; Grossman & Stodolsky, 1994; Stodolsky, 1988), which displays strong resemblance to what has established itself in Germany since the 1960s, Fachdidaktik, the Didaktik of specific school subjects (Gudmundsdottir & Grankvist, 1992). In this context are also to be seen the expanding empirical research on teacher thinking (cf. Day, Calderhead & Denicolo, 1993; Day, Pope & Denicolo, 1990; Elbaz, 1983), concepts such as that of reflective practitioners (cf. Schön, 1983; Fenstermacher, 1994; Saez, 1993), and portfolio

research (cf. Bird, 1990; Lichtenstein, Rubin & Grant, 1992; Wolf, 1991), which in American research thematize what Prince wanted to discuss before the turn of the 19th century with the help of Didaktik, namely teachers' specifically pedagogical knowledge about what they are doing. But one should beware of overhasty assimilation into German, of imports or reimports that do not systematically consider that in a field pre-structured by Didaktik, knowledge about instruction is not acquired and processed in the same way as it is when there is no ready-formulated tradition of collective discourse within the profession. They will possibly miss the very object they set out to study: the constitution of knowledge relevant instruction (cf. Bromme, 1993; Hopmann, 1994a).

IV

The failure of curriculum reform now rests in the annals of general Didaktik as something of a lesson to be learned. Curriculum research, having been given "too many premature laurels and subventions worth millions," has "gone down without trace" (Jank & Meyer, 1991, p. 126). If this were the end of the matter, the issue of Didaktik and/or curriculum could be filed away as generating rather more misunderstanding than understanding. But circumstances dictate that this cannot be the way forward.

- the international interlacing of (school) knowledge;
- the international interlacing of education and training;
- increasingly similar structures in curriculum/study plan work and
- international cooperation in research and development,

All necessitate constant encounters between the two cultures and steadily increase the need for mutual understanding (cf. e.g., Bruggen, 1989; Klein, 1991; Schleicher, 1993; Skilbeck, 1990; Toombs/Tierney, 1991). But how should one proceed? If we take the current state of development on both sides as a starting point, it may be observed that due to the very wide definitions of curriculum and Didaktik that have gained currency over the last few years, the earlier competition or complementarity (Patry, 1992) has been replaced by a gradual rapprochement that makes conceptual delineation increasingly difficult and 70s style primacy debates simply superfluous.

A possible consequence would be an end to the conceptual debate altogether: "We should not worry about what the definitions ought to be, but rather about identifying what problems of teaching and learning need to be addressed" (Andrew Ahlgren, Peter Menck). This was agreed upon at the Kiel symposium in particular by those working primarily in pedagogical research, for whom the exchange of results, methods, concepts, etc., is already largely an uncomplicated feature of the everyday business of their science (Andreas Krapp). Yet the proposal, which would have been consistent along these lines, to apply concepts and experience from Didaktik directly in a new type of teaching and learning research (such as using Klafki's guiding questions of didactical analysis as hypotheses for instruction research) induced spontaneous objections among "didactically schooled" German and Nordic participants: concepts of Didaktik, they argued, are to be sought discursively and are thus unsuitable as an instrument of empirical research (e.g., Hilbert Meyer, Sven Nordenbo). Here, the only agreement that could be reached was that, given the variety of possible definitions, the differences and similarities cannot be resolved or pinned down by means of new concept definitions. As one participant who has studied, taught, and researched within both traditions warned, "We should be mindful that a shared language does not necessarily produce shared understandings" (Max van Manen). Definitions alone cannot reconcile the differences between the powerful traditions that lie behind every concept. Instead, all too facile formulations hide the fact, observed by a British participant, "... that the context from which our Anglo-American participants spoke was so fundamentally different from that of our German colleagues" (Arthur Jennings).

Forsaking conceptual work can, therefore, give no more satisfaction than overhasty reconciliation through integrative or complementary definitions. Instead, what is needed is a topic of didactical cultures that deals with the modes of expression most forcible in each tradition and therefore for exchange, covering their institutional preconditions and discursive consequences to such an extent that each frame of reference is visible and comparisons may be drawn. Here, too, there may be implicit preliminary work wherever problems of transfer, translation, and cooperation are concerned. The observations and experiences in the relationship between Didaktik and curriculum so far allow a few areas to be proposed in which the reference to different didactical cultures creates problems of understanding (cf. Table 2).

It should be remembered, as Frank Achtenhagen emphasized in his evaluation of the Kiel symposium, that misunderstandings do not as a rule begin at the level of elaborated theories and methods. They are more likely to arise, as—we can add here—where there is recourse to everyday experiences, to everything that is taken for granted and represented in the images we possess. We may all know that they are not identical, but this often only makes itself felt when their stereotyped content (frequently resistant to empirical findings) breaks through our theoretical safeguards.

This can be illustrated (though not in every detail) by the example of instruction planning. The differences here were already obvious to Prince and influenced the transfer problems of curriculum research. The tasks of instruction planning vary with the frame of reference, i.e., will depend on central or local curriculum/study plan control. If control is local, curricular elements (such as textbooks) are selected in a free market (free in theory at least) and adapted to suit local requirements. The curriculum can be accepted or rejected as a whole or in part in other words, the measure of implementation can differ (enactment, cf. Doyle in this publication). Centralized curricula (*Lehrpläne*) cannot, at least not legally, be accepted or rejected, only followed in different ways. They are not generalized instruction planning, which can be varied or modified, but guidelines for instruction planning, which can be fulfilled by different means of implementation. Curricula resemble building materials (which may be anything from a nail to a complete prefabricated house), whereas study plans are the building guidelines where the targets are binding, but execution depends on the individual builders. A detailed curriculum such as America 2061 would be a kit of prefabricated parts, and if building guidelines also existed stipulating a standard target, there would be hardly any scope left for local variation. Given local autonomy, however, there is nothing to stop the builders themselves from arranging the parts to produce a different kind of architecture altogether (cf. Riquarts & Hopmann, 1995). The fundamental difference does not lie in the amount of scope but in the perspective. In the case of curriculum enactment, the scope is limited by the effect the materials have under the given conditions and can be justified at this level. In the case of a study plan or centrally planned state curriculum, the instruction must be planned and material selected within the scope accorded and with an eye to local conditions.

Image Elements of Didactical Cultures - Curriculum <=> Didaktik

Level	Curriculum	Didaktik
1. Lesson planning	..	
Core question	how	what, why
Content as	object	example
Aims as	task	goal (direction)
Lesson plan as	course action	frames of reference
Teaching as	enactment	licensed "Gestaltung"
Tact as	manner, feeling	reasoning, judgment
2. Research		
Focus	individual teacher ("Nancy")	art of teaching
Assessment of	teacher thinking	didactical analysis
successful	(interpretative)	(hermeneutic)
teaching	student achievement (scores	professional appropriate-
Innovation by"	and standing)	ness, lesson reflection
Shifts of paradigms by	Implementation	reform
	Movements, fashions	schools, heresy
3. Theory		
Function	preparation	Initiation
Sequence	subject matter comes first	"Pädagogik" comes first
Place of Subject Matter	SMD as mediator between	SMD as combination of
Didaktik (SMD)	structures of knowledge and	scientific knowledge and
	instruction	general Didaktik

This has consequences for all individual aspects of instruction and thus also for instruction research. Under central control, the aims of instruction are given. Instruction planning must first consider and understand *why* something is to be taught, and, proceeding from this, the *how* of instruction must be determined. An imperative of didactical research, therefore, is the development of an attitude to the given aims or the formulation of an idea of one's own aims from which objects can be selected and interpreted "with pedagogical responsibility." All usual models of today agree on this primacy of goal determination (primacy of Didaktik in its narrower sense (Jank & Meyer, 1991). In traditional curriculum design, goal determination is also the starting point, the establishment of "intended education" (beabsichtigte Bildung; Frey, 1971). At the level of instruction planning, however, and this is the point of departure for the new orientation initiated by Lee Shulman, it is no longer the goal at the outset, but the confrontation with the material (content) that is paramount, i.e., the question of what can be taught and how. Thus, teaching is primarily work on the object (cf. Grossman, Wilson

& Shulman, 1989; Gudmundsdottir, 1991). In this sense, the older style of didactical analysis (Klafki 1958), concentrating as it does on content and educative substance (*Bildungsinhalt* and *Bildungsgehalt*), is an interesting proposition for instruction research as an aid to sounding out the diversity of contents (cf. Gudmundsdottir & Grankvist, 1992), whereas the new version, proceeding from instruction goals and their determination, caused irritation.

Under the primacy of goal determination, the object is only a contingent exemplification of a predetermined goal. The question is not the “150 possibilities” of knowing and teaching a certain object (Wilson, Shulman & Richert, 1987), but which object can offer certain sought-after possibilities of attaining given goals. If, for example, it is to be checked whether instruction fulfills the appointed task, content coverage would only be an appropriate yardstick in the first case. In the case of *Didaktik*, goal attainment would have to be checked, i.e., to what extent the objects corresponded to the set aims.¹³

The comparison is additionally complicated by the fact that the result, for example, the planned progression of instruction, does not need to be so very different, no matter which culture is concerned. Consequences come only

¹³ In view of the largely unresolvable problem of deduction, this should often be difficult and, in some cases of generally formulated goals, impossible. And in fact, international comparative studies such as TIMSS then only address content coverage and not goal attainment (cf. Raizen et al., 1994). These comparisons build on the fact that the internationality of the scientific images of knowledge means that individual elements of knowledge can be named virtually identically in several languages if abstraction from their (didactical) application context is undertaken. Within TIMSS, for example, the contents of the relevant study plans or textbooks are noted in a categorical framework characterizing dozens of individual elements and intended as a means of facilitating comparisons through a kind of comparative topography of contents [what, when, how long, in what order]. Building on this, the tests are thoroughly checked for their appropriateness to the respective distribution of content and linguistic conditions, i.e., it is ensured that no significant distortion will occur. Goals aiming beyond the knowledge and skills of isolated contents, on the other hand, are bound to their interpretation within the perspective of the images of teaching rooted in local tradition, which may admit considerable variations in the agglomerates of achievements that can be counted as fulfillment of the goals at certain times. They can hardly be pinpointed in such empirical comparisons of achievement. If this constitutive difference in the images of knowledge or images of teaching is not taken into consideration in the interpretation of comparative data, international comparisons are bound to foster didactical pointillism, where isolatable achievement elements count for more than comprehensive contexts and the goals, norms, and values they guarantee.

for what is to count as successful instruction. A Scandinavian colleague, for example, who cited high quality of instruction implementation as justification for her selection of “excellent teachers” as part of an American study had to apologize for the lack of “evidence in terms of achievement data”—“Perhaps it is my European background that makes me focus on this aspect of teaching because I feel there is more to education than grades” (Gudmundsdottir, 1991, p. 320). In the case of curricular content coverage, the yardstick is yielding results: do the students possess the object given in the curriculum or not? In a centralized curriculum system, on the other hand, the question is whether instruction has proved an appropriate interpretation and implementation of the intentions from which the study plan stemmed. Student achievement, strictly speaking, could only be evaluated in each individual case with reference to the didactical interpretation and implementation of the study plan intentions, which could possibly allow opposite results. A good teacher would be judged on whether he or she can appropriately implement the interpretation of the educative substance (Bildungsgehalt) made in instruction planning.

Even if the implementation of instruction is to become a yardstick instead of the results, different contexts will yield different versions. A good illustration of this is given by Max van Manen’s reconstruction of pedagogical tact. In his methodological interpretation, tact is measured primarily in terms of understanding for the learner. Tact is decency in dealing with others and an ear for the right tone. In the understanding influenced by Herbart, on the other hand, tact is the skill, “prepared” by science, of “rapidly assessing and deciding,” what is didactically appropriate (1804, p. 141). Tact thus also belongs to all dealings with the matter, e.g., to transposition from study (plan) to instruction (plan) under the given conditions of situation and individuals. In the discussion of competing cultures at the Kiel symposium, this meant that some (following van Manen) saw tact as presupposing more feeling than knowledge—in other words, one can act tactfully without knowing—while others (following Herbart) saw *tactical knowledge* as a precondition for tact—in other words, didactical ignorance would always be tactless.

V

Proceeding similarly from the position of instruction planning, other traditional demarcation lines could be used to identify different images in

the didactical cultures. These could include, for example, the relationship between theory and practice (observing vs. participating; Sven Nordenbo), the conception of innovation (implementation vs. reform; Sven Sjöberg), or the relationship between subject Didaktik, the academic disciplines, and general Didaktik (Roland Lauterbach). There is, however, a measure of common ground in areas where the opposite would traditionally be assumed. The pedagogical version of the positivism debate, for example, introduced by Robinsohn's (1967) comparison of empirical-technological curriculum research and normative (human-science) Didaktik is over (Jürgen Baumert). With the integration of interpretative processes into empirical instruction research and the parallel enrichment of didactical reflection from the battery of empirical research methods, the distinction between "qualitative" and "quantitative" has blurred: there is a large degree of consensus that didactical or instruction research should begin with the self-interpretation of the participants (cf., in particular, the contributions by Anderson, Bromme, Menck, and Terhart)¹⁴

¹⁴ The proposals formulated in spite of this rapprochement, particularly by Scandinavian educationists, to complement qualitative didaktik with empirical instruction research (Sigrun Gudmundsdottir, Svein Sjöberg; cf. Gudmundsdottir & Grankvist, 1992) can perhaps be attributed to the fact that the Scandinavian understanding is still primarily that of human-science didaktik without its later extensions and additions. But above all, they are a consequence of the need for a bridge between didaktik and empirical instruction research in scientific subjects. So far, the bridge-building has taken place as practice discourse in teacher education and study plan development, outside the academic context. This has meant that subject-related instruction research has been approached through the work of individual teachers and their processing, construction, and application of subject knowledge (a classic example is the Shulman group's observations of Nancy). Experienced practitioners' instruction and reflection are compared with the achievements of "novices" to tease out what distinguishes experts from beginners (cf. e.g., Leinhardt et al., 1991). Didactical analysis, in contrast, measures instruction against what is considered appropriate by the profession and by research, using well-established processes of instruction interpretation from subject or general didaktik. The knowledge of teachers can reflect greater or lesser portions of the state of the professional discussion or can enrich the latter more or less skillfully with new experience. Under this view, the category of pedagogical content knowledge in Shulman's model of knowledge falls into two overlapping but not identical parts: the teachers' knowledge of the object and professional discourse summed up as didaktik (cf. Bromme, 1993). The instruction research-plus-didaktik approach takes this relationship as a measure of teaching achievement or as an empirical check on whether the real world bears out the assertions of didaktik.

Increasingly, there is not only a blurring of the paradigmatic borders but also discernible rapprochement through shared basic convictions. Thus, although the Anglo-American participants presented nothing that would correspond to the normative self-commitment of didactical and instruction research, as demanded:

- by Klaus Schaller based on the Comenian linking of *scientia* and *conscientia* and
- by Wolfgang Klafki based on the ideas of self-determination, participation, and solidarity,

these positions met with their undivided agreement. A few Scandinavian contributions (in line with the widespread reference to critical theory)¹⁵ demanded in addition explicit partisanship of research on behalf of democratic values (Karsten Schnack, Svein Sjöberg) or certain disadvantaged groups such as women (Kirsten Reisby, Sigrun Gudmundsdottir), but it is doubtful whether this call for partisanship was equally understood. The fact that this partisanship is not only a question of the ethics to be observed in research in all disciplines but also of the constitution of Didaktik from the point of view of pedagogical responsibility (Peter Menck) “went virtually unnoticed” (Max van Manen). This is not surprising in view of the experiences processed since John Tilden Prince, as this is historically a topos of “the idea of pedagogy as calling vocation” (Max van Manen) consolidated in Seminar didaktik or Büro didaktik.

A definition of Didaktik or curriculum or of the relationship between the two cannot be derived from the cultural differences illustrated here by a few isolated examples. Depending on the context and the concept, these expressions will cover a variety of meanings that cannot be summarized in a single definition. Moreover, the differences expressed at the different levels are in practice incomparably more varied than the simplification into stereotyped images, such as we chose here, can reflect. The systematic and

¹⁵ It is one of the curious anachronisms of the discussion that the picture of German didaktik in the Nordic countries is still colored by critical theory (Habermas, Ziehe, Negt, etc.), which facilitates the coupling of didaktik with American versions of critical curriculum research (cf. Dale, 1972; 1992; Telhaug, 1987).

methodological contributions, like the country reports, are not least an example of this diversity. To make this diversity more transparent and fruitful for dialogue would be the task of a comparative topic of Didaktik.

References

- Achtenhagen, F. (1992). Zur Notwendigkeit einer Renaissance der Curriculum-Diskussion [On the necessity of a curriculum discussion renaissance]. *Unterrichtswissenschaft* 3, 200–208.
- Adams, J.Q. (1968). Schools and seminaries for the instruction of youth in Silesia (1800). In S.E. Fraser & W.W. Brickman, *A history of International and comparative education documents* (pp. 31–33). Scott & Foresman.
- Adi-Amini, B. (1976). *Schultheorie - Geschichte, Gegenstand und Grenzen* [A theory of schooling – history, subject and limitations]. IPN.
- Adick, C. (1992). *Die Universalisierung der modernen Schule* [The universalising of the modern School]. Brill & Schönigh.
- Apple, M.W., & Christian-Smith, L. (Eds) (1991). *The politics of the textbook*. Routledge.
- Archer, M. (1979). *Social origins of educational systems*. Routledge.
- Baker, D.P. (1993a). A Rejoinder (to: Westbury I.: American and Japanese achievement... Again: A response to Baker). *Educational Researcher* 22(3), 25–26.
- Baker, D.P. (1993b). Compared to Japan, the U.S. is a low achiever ... Really: New Evidence and Comment on Westbury (to: Westbury I.: Comparing American and Japanese Achievement: Is the United States Really a Low Achiever?). *Educational Researcher* 22(3), 18–21.
- Barrowman, M. (1956). *The liberal and technical in teacher education*. Bureau of Publications, Teachers College, Columbia University.
- Bastian, J., & Gudjons H. (1991). *Das Projektbuch* [The handbook of project learning]. Bergmann & Helbig.
- Bastian, J., & Gudjons H. (1993). Das Projekt: Projektunterricht [The project: project instruction]. *Pädagogik* 45(7/8), 72.
- Ben-Peretz, M. (1990). *The teacher-curriculum encounter. Freeing the teachers from the tyranny of texts*. SUNY Press.

- Ben-Peretz, M., & Bromme, R. (Eds) (1990). *The nature of time in schools*. Teacher College Press.
- Bird, T. (1990). The Schoolteacher's Portfolio (1990). An essay on possibilities. In J. Milman & L. Darling-Hammond (Eds). *The New Handbook of Teacher Evaluation* (pp. 241–256). Corwin Press.
- Blankertz, H. (1973). *Theorien und Modelle der Didaktik [Didaktik theories and models]*. Juventa.
- Brezinka, W. (1971). *Von der Pädagogik zur Erziehungswissenschaft [From pedagogy to education sciences]*. Beltz.
- Britton, E.D. (1994). *Cross-national differences in science textbooks* (Paper Presented at the Annual Meeting of the American Educational Research Association), New Orleans.
- Bromme, R. (1993). Beyond Subject Matter: A Psychological Topology of Teachers' Professional Knowledge. In R. Biehler et al. (Eds), *Didactics of mathematics as a scientific discipline* (pp. 73–88). Springer.
- Brophy, J. (Ed.) (1991). *Advances in research on teaching*, Vol. 2. Emerald.
- Bruggen, J.C.v. (1989). Lehrplanarbeit in Westeuropa [Curriculum work in Western Europe]. *Bildung und Erziehung* 42(1), 39–56.
- Cherryholmes, C. (1988). Content exploration of meaning and the dialogue between textbook and teaching. *Journal of Curriculum Studies* 20(1), 1–21.
- Clune, W. (1993). The best path to systemic educational policy: Standardised/centralized or differentiated/decentralized. *Educational Evaluation and Policy Analysis* 15(3), 233–254.
- Cruikshank, K., & Knoll, M. (1994). Herbart in Amerika. Vom Anfang und Ende eines einflussreichen Reformkonzepts [Herbart in America. From the beginning and end of an influential reform concept]. *Bildung und Erziehung* 47(2), 149–164.
- Cuban, L. (1990). Reforming again, again, and again. *Educational Researcher* 19(1), 3–13.
- Cuban, L. (1992). Stability and change in curriculum. In P. Jackson (Ed.), *Handbook of research in curriculum* (pp. 216–247). MacMillan.
- Dale, L.E. (1972). *Pedagogikk och samfunnsforandring [Pedagogy and societal change]*. Ejler.
- Dale, L.E. (1992). *Pedagogikk och samfunnsforandring 2 [Pedagogy and societal change 2]*. Ad Notam Gyldendal.

- Day, C., Pope, M., & Denicolo, P. (Eds) (1990). *Insights into teachers' thinking and practice*. Routledge.
- Dörpfeld, F.W. (1962). *Schriften zur Theory des Lehrplans [Essays on the theory of curriculum]*. Julius Klinkhardt.
- Doyle, W. (1986a). Classroom organisation and management. In M. Wittrock (Ed.), *Handbook of research on teaching* (pp. 392–431). AERA.
- Doyle, W. (1986b). Content representation in teachers' definitions of academic work. *Journal of Curriculum Studies* 18(3), 365–379.
- Doyle, W., & Westbury, I. (1992). Die Rückbesinnung auf den Unterrichtsinhalt in der Curriculum- und Bildungsforschung in den USA [The recollection of instruction content in the curriculum and education research in the USA]. *Bildung und Erziehung* 45(2), 137–157.
- Duncker, L. (1993). Handeln im Dienste der Aufklärung [Actions in service of Enlightenment]. *Pädagogik* 45(7/8), pp. 66.
- Dunkel, H.B. (1970). *Herbart and Herbartianism: An educational ghost story*. University of Chicago.
- Dunkel, H.B. (1990). *Writ' in water: The epitaph of educational innovation. Lessons from the late 19th and early 20th centuries*. University of Chicago.
- Frey, K. (1971). *Theorien des curriculums [Curriculum theories]*. Beltz.
- Frey, K. et al. (1975). *Curriculum-Handbuch [Handbook of curriculum]* (3 Vol.). Piper.
- Frey, K. (1979). *Die Projektmethode [The project method]*. Beltz.
- Frey, K. (1980). Curriculum – Lehrplan [Curriculum - Syllabus]. In L. Roth (Ed.), *Handlexikon zur Didaktik der Schulfächer [Handbook of the Didaktik of school subjects]* (pp. 44–51). Ehrenwirth.
- Frey, K. (1993). Geschichte der Projektmethode und die Folgen [The history of the project method and their consequences]. *Pädagogik* 45(7/8), 68.
- Fullan, M.G., & Miles, M.B. (1992). Getting Reform Right: What Works and What Doesn't. *Phi Delta Kappan*. 745–752.
- Goldschmidt, D. (1983). Transatlantic Influences: History of mutual interactions between America and German education. In Max Planck Institute for Human Development and Education (Ed.), *Between elite and mass education. Education in the Federal Republic of Germany* (pp. 1–65). Max Planck Institute.

- Goodlad, J.I. (1990). *Teachers for our nation's schools*. Jossey Bass.
- Granheim, M., Kogan, M., & Lundgren, U.P. (Eds) (1990). *Evaluation as policy making*. Jessica Kingsley Publishers.
- Grossman, P.L., & Stodolsky, S. (1994). Considerations of Content and the Circumstances of Secondary School Teaching. *Review of Research in Education* 20, 179–222.
- Grossman, P.L., Wilson, S.M., & Shulman, L.S. (1989). Teachers of substance: Subject matter knowledge for teaching. In M.C. Reynolds (Ed.). *Knowledge base for the beginning teacher* (pp. 23–36). Emerald.
- Gudmundsdottir, S. (1991). Pedagogical models of subject matter. In J. Brophy (Eds), *Advances in research on teaching* (pp. 265–304). Emerald.
- Gudmundsdottir, S., & Grankvist, R. (1992). Deutsche Didaktik aus der Sicht neuerer empirischer Unterrichts- und Curriculumforschung in den USA [German Didaktik under the lense of contemporary instruction and curriculum research in the USA]. *Bildung und Erziehung* 45(2), 178–188.
- Gundem, B. B. (1990). *Læreplanpraxis og Læreplanteori*. Oslo University.
- Gundem, B. B. (1992). Didaktik in Skandinavien. *Bildung und Erziehung* 45(2), 189–200.
- Haft, H., & Hopmann, S. (Eds) (1990). *Case studies in curriculum administration history*. Falmer.
- Hameyer, U. (1983). Systematisierung von Curriculumtheorien [Systematisation of curriculum theories]. In U. Hameyer, K. Frey & H. Haft (Eds). *Handbuch Curriculumforschung [Handbook of curriculum research]* (pp. 53–100). Beltz.
- Hameyer, U., Frey, K., & Haft, H. (Eds) (1983). *Handbuch Curriculumforschung [Handbook of curriculum research]*. Beltz.
- Hamilton, D. (1989). *Towards a theory of schooling*. Falmer.
- Hannay, L., & Seller, W. (1990). The influence of teachers' thinking on curriculum development decisions. In C. Day, M. Pope & P. Denicolo (Eds), *Insights into teachers' thinking and practice* (pp. 240–258). Routledge.
- Hansel, D. (1993). Die Wahrheit über die Projektmethode [The truth about the project method]. *Pädagogik* 45(7/8), 64ff.
- Herbart, J. (1991). Die erste Vorlesung (1804) [The first lecture, 1804]. In G. Müssener (Ed.), *Johann Friedrich Herbart. Didaktische Texte zu Unterricht und Erziehung in Wissenschaft und Schule [Johann Friedrich*

- Herbart. *Didaktik texts about instruction and education in academy and school*] (137–144). Deimling.
- Herbst, J. (1989a). Teacher preparation in the 19th century. In D. Warren (Ed.) *American teachers. Histories of a profession at work* (pp. 213–236). AERA.
- Herbst, J. (1989b). *And sadly teach. Teacher education and professionalisation in American culture*. The University of Wisconsin Press.
- Holmes, B., & MacLean, M. (1992). *The curriculum -A comparative perspective*. Routledge.
- Hopmann, S. (1988). *Lehrplanarbeit als Verwaltungshandeln [Curriculum work as administrative action]*. IPN.
- Hopmann, S. (1993). Review: School knowledge for the masses, edited by John W. Meyer, David H. Kamens and Aaron Benavot. *Journal of Curriculum Studies* 25(5), 475–482.
- Hopmann, S. (1994a). *Komparative Didaktik [Comparative Didaktik]*. Lecture held at the annually conference of the Nordic Education Research Association, Vaasa, Finland.
- Hopmann, S. (1994b). *Images of teaching. The art and history of lesson preparation*. Guest lecture held at the DePaul University, Chicago, USA.
- Hopmann, S., & Haft, H. (1990). Lehrplangeschichte. Themen, Methoden und Probleme vergleichende Forschung [Curriculum history. Subjects, methods and problems in comparative research. *Bildung und Erziehung* 43(4), 361–378.
- Hopmann, S., & Künzli, R. (1992). Didaktik Renaissance. *Bildung und Erziehung* 45(2), 117–135.
- Hopmann, S., & Riquarts, K. (1992). Didaktik – didaktikk – didactics. *Nordeuropa Forum* 2, 21–24.
- Howson, G. (1991). *National Curricula in Mathematics*. The Mathematical Association.
- Huberman, M., & Miles, M.B. (1984). *Innovation up close: How school improvement works*. Centre for Policy Research 1984.
- Jank, W., & Meyer, H. (1991). *Didaktische Modelle [Didaktik models]*. Cornelsen.
- Jefferson, T. (1785/1968). The comparative advantages of an American rather than a European education (1785). In S.E. Fraser & W.W. Brickman, *A history of international and comparative education. Nineteenth century documents* (pp. 26–27). Scott, Foresman.

- Jenzer, C. (1991). *Die Schulklasse. Eine historisch-systematische Untersuchung* [The School class. A historical-systematic investigation]. Peter Lang.
- Johnson, W.R. (1989). Teachers and teacher training in the twentieth century. In D. Warren (Ed.), *American teachers. Histories of a profession at work* (pp. 237–256). AERA.
- Kansanen, P. (1994). *Die Deutsche Didaktik and the American Research on Teaching*. Lecture held at the annually conference of the Nordic Education Research Association, Vaasa, Finland.
- Keck, R.W., Kohnlein, W., & Sandfuchs, U. (Eds) (1990). *Fachdidaktik zwischen Allgemeiner Didaktik und Fachwissenschaft* [Subject didaktik between general didaktik and the subject discipline]. Julius Klinkhardt.
- Klafki, W. (1958/1963). Didaktische Analyse als Kern der Unterrichtsvorbereitung (1958). In W. Klafki, *Studien zur Bildungstheorie und Didaktik* [Studies on theory of education and didaktik], (pp. 126–153). Beltz.
- Klafki, W. (1970). Der Begriff der Didaktik und der Satz vom Primat der Didaktik (im engeren Sinne) im Verhältnis zur Methodik [The term didaktik and the statement of the primacy of didaktik (in a narrow sense) in relation to method questions]. In W. Klafki et al., *Funkkolleg Erziehungswissenschaft* [Distance education course in education science], Vol. 2, (pp. 53–88). Fischer.
- Klafki, W. (1977). Zum Verhältnis von Didaktik und Methodik [On the relation between didaktik and method]. In W. Klafki., G. Otto & W. Schulz (Eds), *Didaktik und Praxis* [didaktik and practice] (pp. 13–39). Beltz.
- Klafki, W. (1989). Die bildungstheoretische Didaktik im Rahmen kritisch-konstruktiver Erziehungswissenschaft [The human-science theoretical didaktik within critical-constructive education sciences]. In W. Klafki et al (Eds). *Didaktische Theorien* [Theories of didaktik] (pp. 11–26). Westermann.
- Klafki, W., Otto, G., & Schulz, W. (Eds) (1977). *Didaktik und Praxis* [didaktik and practice]. Beltz.
- Klein, M.F. (Ed.) (1991). *The politics of curriculum decision-making*. SUNY.
- Kliebard, H.M. (1986). *The struggle for the American curriculum 1893–1958*. Routledge.
- Knoll, M. (1991). Europa - nicht Amerika! Zum Ursprung der Projekt-methode in der Pädagogik [Europe not America! About the origin of the project method in education]. *Pädagogische Rundschau* 43(1), 41–58.

- Knoll, M. (1993). 300 Jahre Lernen am Projekt [300 years of project learning]. *Pädagogik* 45(7/8), 58–63.
- Künzli, R. (1986). *Topik des Lehrplandenkens I, Architektonik des Lehrplanes: Ordnung und Wandel [Topos of curriculum thinking I. Architecture of the curriculum: Order and change]*. IPN.
- Lampe, J., Larsen, E., & Nyholm, A. (1963). *Tönder seminariestat. Fortegnelse over lærere og dimittender fra Tönder seminarium 1788–1963*. Tøndern.
- Leinhardt, G. (1991). Where subject knowledge matters. In J. Brophy (Ed.), *Advances in research on teaching*, Vol 2. (pp. 83–113). Emerald.
- Levine, A. (1980). *Why innovation fails*. SUNY.
- Lichtenstein, G., Rubin, T.A., & Grant, G.E. (1992). *Teacher portfolios and professional development* (Paper presented at the annual meeting of the American Educational Research Association). San Francisco, USA.
- Manen, M. (1991). *The tact of teaching*. SUNY.
- McKnight, C. (1994). Cross-national sequential patterns in mathematics topic coverage: *The case of common fractions and proportionality* (Paper presented at the annual meeting of the American Educational Research Association). New Orleans, USA.
- Melton van Horn, J. (1988). *Absolutism and the Eighteenth-Century Origins of Compulsory Schooling in Prussia and Austria*. Cambridge University Press.
- Menck, P. (1976). Anmerkungen zum Begriff der Didaktik [Comments on the term „didaktik“]. *Zeitschrift für Pädagogik* 22(4), 793–801.
- Menck, P. (1983). Lehrplanreform und ihre Theorie [Curriculum reform and its theory]. *Siegener Hochschulblätter*, 45–54.
- Meyer, J.W., Kamens, D. H., & Benavot, A. (Eds) (1992). *School knowledge for the masses. World models and national primary curricular categories in the twentieth century*. Routledge.
- Miles, M., Velzen, W. G. V., Ekholm, M., Hameyer, U., & Robin, U. (1985). *Making school improvement work. A conceptual guide to practice*. Belgium.
- Morgan, G. (1986). *Images of Organization*. Sage.
- Müller, D.K., Ringer, F., & Simon, B. (Eds). *The rise of the modern educational system*. Cambridge University Press.
- Newell, M.A. (1900). *Contributions to the history of normal schools in the United States (Report of the commissioner of education in the year 1898–99)*. Bureau of Education.

- Patry, J.L. (1992). Didaktik und Curriculum: Konfrontation – Koexistenz – Komplementarität [Didaktik and Curriculum: Confrontation – Co-existence – Complementarity]. *Bildung und Erziehung* 45(2), 213–224.
- Prince, J.T. (1892). *Methods of instruction and organization of the schools in Germany for the use of American teachers and normal schools*. Lee and Shepard.
- Raizen, S. et al. (1994). *International curriculum analysis: Results from the Third International Mathematics and Science Study (TIMSS)*. Paper presented at the Division B symposium at the Annual Meeting of the American Educational Research Association, New Orleans, USA.
- Reich, K. (1977). *Theorien der Allgemeinen Didaktik [general didaktik theories]*. Klett.
- Rein, K. (1897/1988). In S. Hopmann (Ed.), *Zugänge zur Geschichte staatlicher Lehrplanarbeit (Approaches to a history of curriculum work)*. IPN.
- Richmond, W.K. (1975). *Education and schooling*. Routledge.
- Riquarts, K. (1990). Lehrmittelproduktion als Umsetzung didaktischer Forschung und Schulpädagogik [The production of teaching materials as transfer of didaktik research and school pedagogy]. In Riquarts, K. et al., *Naturwissenschaftliche Bildung in der Bundesrepublik Deutschland [Natural science education in Germany]*, (pp. 149–170). IPD.
- Riquarts, K. (Ed.) (1992). *European didactics and the American curriculum tradition. The beginning of a conversation* (2 audiocassettes).
- Riquarts, K., & Hopmann, S. (1995). Review: Brave new science. *Journal of Curriculum Studies* 27(4), 455–461.
- Robinson, S.B. (1971). *Bildungsreform als Revision des Curriculums, 3rd edition. [Education reform as curriculum revision]*. Luchterhand.
- Robitaille, D.F., Schmidt, W. H., Raizen, S., McKnight, C., Britton, E. D., & Nicol, C. (1993). *Curriculum frameworks for mathematics and science*. IEA.
- Rugg, H. (1926). A century of curriculum construction in American schools. In G.M. Whipple (Ed.), *The foundations and techniques of curriculum construction. Part I: Past and present (the 26th yearbook of the national society for the study of education)*(pp. 31–116). Public School Publishing Company.
- Rury, J.L. (1989). Who became teachers? In D. Warren (Ed.), *American teachers. Histories of a profession at work*. AERA.
- Saez, M.J. (1993). *New trends in the teaching and learning strategies in science education for the year 2000*. UNESCO.

- Sauer, M. (1987). *Volksschullehrerausbildung in Preussen. Die Seminare und Präparandenanstalten vom 18. Jahrhundert bis zur Weimarer Republik* [The people school teacher education in Prussia. The teacher education seminars from the 18th century until the Weimar Republic]. Böhlau.
- Schleicher, K. (Ed.) (1993). *Zukunft der Bildung in Europa*. [The future of education in Europe]. Wissenschaftliche Buchgesellschaft.
- Schleunes, K.A. (1989). *Schooling and society. The politics of education in Prussia and Bavaria 1750–1990*. Berg publishers.
- Schmale, W. (1991). Die Schule in Deutschland im 18. und frühen 19. Jahrhundert. Konjunktoren, Horizonte, Mentalitäten, Probleme, Ergebnisse [The school in Germany in the 18th and early 19th century. Trends, expectations, mentalities, problems, results]. In W. Schmale & N.L. Dodde (Eds), *Revolution des Wissens? Europa und seine Schulen im Zeitalter der Aufklärung 1750–1825. Ein Handbuch zur europäischen Schulgeschichte* [Revolution of knowledge? Europe and its schools during the Enlightenment 1750–1825. A handbook of the European school history] (pp. 627–767). Verlag Dr. Dieter Winkler.
- Schmidt, W.H. (1994). *Cross-national differences in curricular tracking and their implications for the study of curriculum*. Paper presented at the annual meeting of the American Educational Research Association. New Orleans, USA.
- Schneuwly, B., & Künzli, R. (Eds). Didaktik/Didactiques. *Bildungsforschung und Bildungspraxis* 12(3).
- Schön, D. (1983). *The reflective practitioner*. Basic books.
- Schriewer, J. (1984). Vergleichend-historische Bildungsforschung. Gesamttafel oder Forschungsansatz. Ein methodenkritischer Kommentar aus Anlass neuerer Arbeiten [Comparative historical education research. A critical comment of the method of contemporary studies]. *Zeitschrift für Pädagogik* 30, 323–342.
- Sedlak, M.W. (1989). Let us go and buy a school master. Historical perspectives in the hiring of teachers in the United States 1750–1980. In D. Warren (Ed.), *American teachers - Histories of a profession at work* (pp. 257–290). AERA.
- Shulman, L.S. (1986). Paradigms and research programs in the study of teaching. A contemporary perspective. In Wittrock (Ed.), *Handbook of research on teaching* (pp. 3–36). MacMillan.

- Skilbeck, M. (1990). *Curriculum reform. An overview of trends*. OECD.
- Stodolsky, S. (1988). *Subject matters*. University of Chicago Press.
- Telhaug, A.O. (1987). *Skolen som motkultur. Didaktikk i sosio-historisk perspektiv [The school as opposing culture. Didaktik from a socio-historical perspective]*. Cappelen.
- Toombs, W., & Tierney, W.G. (1991). *Renewing the college and departmental curriculum*. The George Washington University.
- Travers, K.J., & Westbury, I. (1989). *The IEA study of mathematics: Analysis of mathematics curricula*. IEA.
- Tyler, R. (1950). *Basic Principles of Curriculum and Instruction*. The University of Chicago Press.
- Weniger, E. (1930/1952). *Didaktik als Bildungslehre. Teil 1: Theorie der Bildungsinhalte und des Lehrplans [Didaktik as Education. Vol 1: Theories of education content and of the curriculum]*. Beltz.
- Westbury, I. (1992). Comparing American and Japanese achievement. Is the United States a low achiever? *Educational researcher* 21(5), 18–24.
- Westbury, I. (1993). American and Japanese achievement. Again a response to Baker (Baker, D. P. Compared to Japan, the U.S. is a low achiever... Really. New evidence and comment on Westbury). *Educational researcher* 22(3), 25–26.
- Westphalen, K. (1973). *Praxisnahe Curriculumentwicklung [Close-to-practice curriculum development]*. Auer.
- Westphalen, K. (1985). *Lehrplan - Richtlinien - Curriculum*. Klett.
- Wilson, S.M., Shulman, L.S., & Richert, A. E. (1987). 150 different ways of knowing: Representations of knowledge in teaching. In J. Calderhead (Ed.), *Exploring Teachers' Thinking* (pp. 100–124). Cassell.
- Wolf, K.P. (1991). The schoolteacher's portfolio: Issues in design, implementation, and evaluation. *Phi Delta Kappan* 73, 129–136.
- Woodward, A., Elliot, D., & Carter, K. (Eds) (1988). *Textbooks in school and society*. Garland.

