Leeways in Curriculum Work: Basic Features of a Theory of Curriculum Planning

Stefan Thomas Hopmann & Rudolf Künzli[1]

"The curriculum specifies what should be applied in the classroom." What Erich Weniger (1930/52, 216) could say with some certainty 50 years ago is doubtful today. What is written in the curriculum (whether objectives, material, methods, or whatever else), how binding it is, what other provisions are added, what room for interpretation is given, and what is left—all this varies greatly depending on the country, type of school, and tradition for which the curriculum is intended. It is difficult to get an idea of the curriculum at a time when curricula are usually thick pieces of work, full of objectives, examples of application, and explanations, the meaning and scope of which can only be understood by experts, who are by no means of uniform opinion regarding these matters.

What should, and what can, a contribution to the theory of curriculum planning achieve in this situation? The only certainty is that it no longer makes sense to try to replace curriculum work with curriculum theory, following the example of the very first self-proclaimed "theory of the curriculum," Friedrich Wilhelm Dörpfeld's 1872 paper of the same name. Any attempt to write a curriculum that is valid for a moment or even for eternity (Graser) on the basis of a theory alone misses the point of the social construction of curriculum work, namely that curricula in public education systems are generally the result of social negotiation processes. These can be accompanied, but not replaced, by theoretical reflection and research. Curriculum models can perhaps simplify the negotiation of curricula, but not the social reality that underlies curricula, their development, and their use.

However, public curriculum work—the sole focus of the following—has been better researched than many other parts of the modern school system. Most problems, questions, and solutions are well-known and have been analyzed empirically and theoretically in many cases. From the first classical

---

[1] Translation of Hopmann, S. & Künzli, R. (1995). *Spielräume der Lehrplanarbeit*. Universität Potsdam. Permission for re-publication granted by the authors.

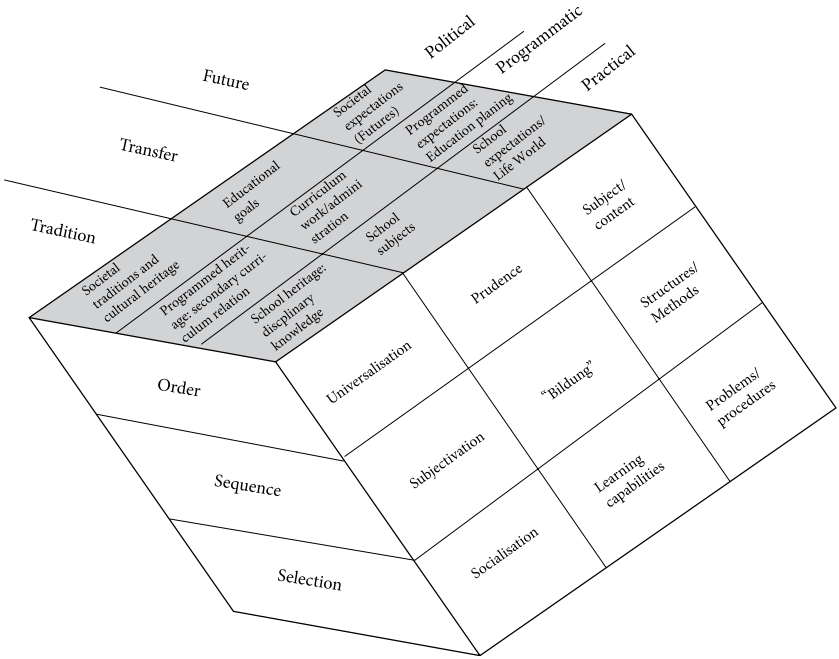
studies (e.g., Rein, 1893) to modern elaborations (e.g., Gundem, 1990), knowledge about curriculum work has continuously increased. Nothing completely new can be said about the structure, function, and effectiveness of curricula. Instead of designing another curriculum model, analyzing another historical case, or breaking down another curriculum into its components, prerequisites, and consequences, we will take stock of where we actually are today. To this end, the various questions and problems that repeatedly arise in everyday work with curricula will be placed in an explanatory context. The starting point will be the practical handling of curricula at various levels, from the classroom to major policy-making. In the following, we will briefly outline the necessary reformulation of curriculum theory as a topology of curriculum planning.[2] Such a topology cannot and should not replace the efforts of those involved in curriculum work, but it should help them clarify their views and intentions.[3]

We have trialed the Aarau curriculum standard (see figure below) in various national and international contexts. It has consistently proven to be a suitable instrument for systematizing and describing problems and processes in curriculum work. We want to present the structure and use of this instrument below as briefly as possible. We will start from three simple observations that serve as premises for developing all the following considerations. Numerous studies in comparative historical didactics support all three statements and correspond to the common sense of curriculum research.

---

[2] We presented a first elaborated version of the first two layers of the curriculum standard in 1994 (cf. Hopmann & Künzli 1994). The third layer of the standard is described in detail in Künzli (1986). As this text is an extension and supplement to the one presented at that time, definitions and formulations taken from there are not explicitly labelled below. For reasons of clarity, we have also dispensed with the detailed classification of the sub-elements in terms of curriculum and scientific history, which we have done elsewhere (see, among others, Künzli, 1986; Hopmann, 1988; Künzli, 1988; Haft & Hopmann, 1990; Hopmann & Künzli, 1992; Hopmann & Künzli, 1994). The references to the underlying literature, which would have gone beyond the scope of this article, can also be found there.

[3] Here and in the following, we understand curriculum work to mean the entire social practice that avowedly serves the selection and/or justification of teaching content, whether at the state, school, or intermediary level of curriculum administration, teacher training, and the production of teaching materials, which has expanded so enormously in recent years.



Topic of curriculum planning (Aarau standard)

Curriculum Work and its Theory

The effectiveness of the school is based on its ability to process increases in knowledge and changes in values in an alleviating and renewing way. Curriculum work is the most important medium for this. There is no direct route from the curriculum to the classroom, but curriculum work takes place at various levels: in curriculum development, in curriculum teaching, and in schoolwork. Each level is dependent on the utilization of the others. Curriculum work thus facilitates the difficult business of keeping the organization of the school system socially and pedagogically tractable despite its complexity and momentum. Curriculum theory cannot minimize the complexity of this task, but on the contrary, it should highlight the non-evident prerequisites and consequences of its implementation.

1. The historical core of curriculum work has connected the basic purposes of school teaching—to teach and to plan teaching—with each other.

The mean of their communication is usually an educational mission or an educational idea, the educational ideal.
2. Curricula fulfill different functions. These include the public justification of teaching materials (political function), the selection and arrangement of suitable teaching materials (programmatic function), and the framing and support of school lesson planning (practical function).[4]
3. Curriculum planning takes place in the three basic modes of ordering, sequencing, and selection. Based on these three analytical assumptions, the decision-making fields of curriculum work can be described in their historical (I) and current form (II) as well as in their sociological conditions (III), and finally some recurring structural problems of curriculum work can be identified (IV).

I

Today, as at any other time in school history, there are far more things between heaven and earth that are worth teaching for good reason than can be taught to even the most gifted child in their schooling. Selection is necessary. Curriculum work is a mode of deliberate choice. In complex, publicly administered school systems, this happens on at least three interpenetrating levels:

- In a public, political discourse in which demands on the school are articulated and ways the school can show the demands have been met.
- In programmatic work that attempts to bring together the demands placed on schools and the opportunities offered by schools in a curriculum or material (e.g., in textbooks, handouts) that has the same effect as the curriculum,
- In practical work, wherever school lessons are planned and delivered.

Specific curriculum decisions have to be made at each level. However, the form that curriculum work takes at each level varies widely both historically

[4] Here and in the following, the term "subject matter" is used as a collective term that describes all conceivable contents of curricula, i.e., in addition to the subject matter, also teaching objectives, teaching content, or teaching strategies, for example. The analytical distinction between the political, programmatic, and practical levels follows the usual models of political and administrative science.

and internationally. For example, the public discourse may be completely independent or partly guided by channels of public participation and parliamentary consultation. The programmatic work may be located at the level of the individual school, the municipalities, a region, or a nation. The practical work may be formally free or linked in a specific way to the achievements of the other levels. The form and location of institutionalization, in particular, influence the relationship between the levels. However, there are several fundamental tasks that must be solved irrespective of the specific organization of the levels and their relationship to each other.

In this sense, every curriculum represents a socially constructed selection from an existing cultural heritage. Regardless of whether this involves knowledge, skills, abilities, attitudes, or values, it necessarily draws on the reservoir of civilizational and cultural heritage through which a society (or another school-based community) maintains and experiences itself.[5] What from this heritage is taken into account in the curriculum is decided from at least two perspectives: on the one hand, from a perspective of safeguarding the identity and stability of the forces supporting the school, i.e., with a view to cultural heritage; on the other hand, with a view to the tasks to be mastered in the future, the future safeguarding of the survival and competitiveness of these forces, and the future of their offspring. The difficulty here is that, at least since the Enlightenment, it has been almost impossible to reach agreement on these initial conditions, i.e., what heritage is worth preserving and what future we are heading toward.

Curriculum planning became a socially regulated practice since the two tasks of passing on heritage and qualifying for the future could no longer be reconciled naturally, and the determination or selection of what was required no longer seemed self-evident. This made it necessary to search for a mediation between the two, such as a regulative idea that would make it possible to choose what to teach from the society's heritage and for which

[5] What is said here and in the following about the relationship between a society and its school can essentially also be applied to the relationship between smaller communities (private, religious, etc., school authorities, or minorities) and their schools, except that the curriculum problem is doubled there, insofar as every curriculum decision involves a decision about the specific heritage of the respective community on the one hand and, on the other hand, indicates a relationship to the cultural heritage of the society in which the school authority is embedded (cf. Hopmann & Künzli 1994).

futures. Such educational ideals can, for example, consist of selection criteria, teacher expectations, or learning concepts; they can be formulated as ideas of educated individuals or of educational demand; and they can be more committed to traditions or more to expectations of the future. The implicit sedimentation of such educational ideals in the localization and measurement of the school system has always been at least as powerful as their explication in educational theory and educational policy. This power relates to, for example, access entitlements or certification standards.

Since the beginnings of curriculum work, there has only been agreement that a curriculum-based mediation between cultural heritage and future requirements must be achieved, but not on how and by what means this ought to be achieved. In the history of schools, there have been repeated attempts to solve the task of mediation holistically, through scientific research and development, i.e., by explicating an educational ideal, pasts worth preserving, or expected futures to create a curriculum that is both valid in terms of educational theory and practicable in practice (most recently as part of the curriculum euphoria of the 1960s and 1970s). However, such endeavors cannot replace social work in the curriculum in the long term. On the one hand, the explication or evidence of an educational ideal cannot guarantee the long-term approval of all the forces supporting the school, at least in pluralistic societies. Secondly, educational ideals are not concepts that can be consistently unfolded but rather an expression of the "battle of intellectual powers" (Weniger) that has congealed in them and is always only provisionally decided. The more indeterminately their relationship to tradition and the future is formulated, the broader the agreement with them may be, but the less they can orientate the necessary curriculum regulations and selection decisions. Particular teaching models, such as those that characterize fundamentalist or radical reformist schools, may make selection easier, but they can hardly count on approval from many social camps.

To make matters worse, what appears necessary in terms of teaching tradition and the future does not necessarily have to be teachable or learnable. The selected material must first be transformed into teaching material. In the history of curriculum work, this has led to a doubling of the curriculum discourse. The relationship between the teaching and learning paths to be planned and the possibilities in which the planned lessons are embedded,

i.e., the work on the specific teaching program, has been added to mediation in the educational ideal. The first curriculum commission in Prussian history, which drew up the standard plan for Prussia's secondary schools (1816) under Schleiermacher's leadership, saw its task in this sense as reconciling the political (public) discourse on the redefinition of education with the factual traditions of teaching and the future possibilities for expanding the school system.

The specific task of curriculum administration, as it had gradually established itself in most European countries since the late 18th century, was seen in the independent transformation of the guidelines from the political discourse into decisions on teaching programs. Its scope for action was institutionally based on the planning sovereignty granted to it and, in planning terms, on the fact that political guidelines such as educational ideals do not necessarily lead to certain teaching programs any more than certain teaching programs can guarantee the achievement of the desired educational ideals. Depending on the circumstances, individuals, departments, and, since the end of the 19th century, generally, commissions made up predominantly of teachers were entrusted with curriculum development.

Each time, the task was and is to harmonize the education deemed necessary with the given teaching conditions in the form of programmatic declarations. How the program was put into practice in detail, on the other hand, was left to the individual schools and later to the individual teachers under the heading of methodological or pedagogical freedom. Teachers were thus given a license, as it were, to develop their pedagogical skills within the framework of general systems of specifications (cf. Hopmann, 1988). Curricula were and are therefore not generalized lesson planning but only frameworks or guidelines for specific lesson planning. In this respect, curriculum systems differ fundamentally from planning concepts, for example, which are not based on the program and its choice of material but on the definition and control of the results of the lesson attendance. Initially, this freedom went so far that the division of school subjects by year and the relationship between the school subjects grouped into subjects were largely left to the freedom of method, which made methodologically based regroupings of the subject matter from Pestalozzi's method to Herbartianism to reform pedagogy compatible with the respective curricula in force. The limitation of these freedoms by the inherent logic of fixed school subjects and school

structures gradually resulted from the compartmentalization of curriculum work and the segmentation of subject selection along subject-didactic boundaries, which, incidentally, was by no means politically or administratively enforced but rather followed parallel fragmentations of teacher training and teacher work.

The implementation of the selection of subjects set out in the curriculum was and is by no means arbitrary. On the contrary, an internal discourse within the profession about the possibilities of teaching, written down in general and specialized didactics, developed precisely about the design of the curriculum. Since the end of the 19th century, with the differentiation and institutionalization of (subject-specific) didactic knowledge, the conviction prevailed that the practical feasibility of the intended education should be the central criterion of curriculum planning. Therefore, only teachers could adequately assess it (Willmann, Rein). In their didactization, curricula increasingly became a selection of the selected (Menck), a balance sheet of what had already gained validity in school practice. They thus changed their character: concise programmatic balances of the political discourse became detailed didactic program writings. Occasionally, the models of the didactic implementation of the program through grading, layering, sequencing, etc., themselves effectively took on the status of mediating educational ideals. Then, for example, the genetic line management or exemplarity of the teaching program became the determining selection criterion.

If, however, the programmatic-practical implementation and the political-programmatic selection are congruent, the freedom of method founded in this distinction almost inevitably disappears. This is quite obviously the case in normatively oriented approaches such as in Christian-conservative or socialist curriculum models and in many reform pedagogical concepts (such as Rudolf Steiner's pedagogy). They merge educational ideals and curriculum models into a didactic unambiguity that leaves hardly any room for independent lesson planning by the individual teacher or school. In terms of the curriculum, however, other modes of integrating didactic intentions and methodological decisions also have the same effect, such as the countless models that take learners' lifeworld and everyday experience as the central moment of programmatic structuring. The methodological accessibility of the lifeworld (e.g., in visualization or project) then becomes the selection criterion, as if there were a pre-stabilized harmony between its accessibility

and what is to be learned from tradition and/or for the future. The selection problems, therefore, do not disappear. Rather, such models reproduce the political-programmatic tensions methodically, such as a tension between knowledge systematics and life-world orientation.

Theoretically and historically, almost every curriculum content has been negotiated at each of these levels: Sometimes reference is made to its significance in everyday life, sometimes to its traditional significance, sometimes to the importance of the content in the school subject or school canon, and sometimes to its exemplary significance for overcoming future problems or acquiring qualifications, and often none of this is decisive, but the mere fact that the content has been included in the curriculum up to now and no agreement could be reached on its abolition. New content usually enters the program through its significance in life and society, while old bastions are often defended with their interconnectedness in the context of the school subject or educational program. No content can be permanently installed on the basis of one aspect alone: child education, medicine, and law, for example, are unquestionably useful subjects in everyday practice and highly significant to society, which were at least occasionally included in Central European curricula but could never be permanently and comprehensively established in the canon.

If the anchoring of a previously introduced subject is reduced to individual aspects, it is in danger of disappearing from the canon, as has been the case with Hebrew and Ancient Greek, for example, since they no longer serv any recognizable propaedeutic purpose apart from in a few special cases. The uneven anchoring in different fields also often leads to systematically unsolvable discourse problems between the levels, for example, when practical everyday use and cultural tradition content or the systematics of the school subject and the reference to social problems are brought into conflict with each other (cf. section IV). Then, for example, the importance of classical literature compared to everyday communicative competence or systematic science compared to phenomenon-orientated science in the curriculum should be weighed comparatively. In contrast, it could be shown historically and systematically that individual sub-aspects cannot be successfully traded off against each other and that satisfactory answers to political, programmatic, or practical problems of teaching tradition and the future can only be given at specific levels and in specific areas.

II

The most far-reaching description of curriculum work is achieved by determining the relationships between the political, programmatic, and practical curriculum work levels. Curricula can, for example, be developed as documents of national school policy, as administrative standardization or coordination, or as profiles of individual schools. The teaching in the individual school can adhere more or less closely to the curriculum, and the interaction between the two can be characterized by the curriculum itself or other *secondary curriculum commitments* (such as teaching materials and examination regulations). Ultimately, one cannot be substituted for the other: A successful teaching program does not ensure good teaching; any more than good teaching can provide a school with legitimacy. The decisive achievement of the social system of curriculum work described here lies precisely in enabling communication and connectivity not only at but also between the levels in which all those with a political, programmatic, or practical interest can contribute with their perspective. In this context, the long-term development of curriculum work for public schools can be characterized by three interdependent problem areas, irrespective of the various didactic and political cycles, in each of which the interaction between the levels is in question: *didactization, fragmentation, and concentration*.

Since the turn of the century, curricula have been understood primarily as didactically formulated teaching programs and not as political-programmatic declarations of intent. The curricula became more detailed and more closely concerned with teaching practice, while the underlying educational ideals were addressed in short preambles or outside the curricula. This was due less to the educational administration than to the school practitioners who were increasingly pushing into the curriculum work and taking over the formulation work. However, with the increasing didactization of curriculum development, new forms of educational policy preparation work on framework concepts and guiding principles outside the curriculum developed as a counterbalance, so to speak, in which the political-programmatic guidelines for curriculum development and schoolwork were to be bundled. Typical examples of this are attempts to canonize traditions worth preserving, the fanning out of epoch-typical key problems, or the labelling of curriculum-constituting teaching levels in virtue catalogues, key qualifications, or even educational concepts.

Regardless of whether they are developed by independent events (such as conferences or commissions) or public bodies (such as parliaments), such mission statements (i.e., the announcement that a new curriculum will come) regularly generate more public reaction than the subsequent programmatic-practical elaborations in curricula. However, the effect of political preparatory work on curriculum design is not certain. New curricula, textbooks, or other documents with the same effect as curricula often do not reflect their intentions beyond the preambles, especially if the political statements of intent are not backed up by further planning specifications (such as school structure decisions, timetables, or school laws).

The tense relationship between political-programmatic discourse on the one hand and programmatic-practical discourse on the other almost inevitably leads to friction and contradiction in phases of increased public interest in schools and teaching. What appears to be didactically necessary is not necessarily politically feasible. What prevails politically is, therefore, not yet didactically realizable. The inevitable tensions contribute to the field of curriculum work becoming increasingly differentiated into different levels of action and regulatory formats, from constitutional norms to teacher handouts, each of which has a different impact on the realization of the content described in the curriculum. It is then no longer primarily or solely the curriculum that determines what applies in schools, but a multitude of sometimes competing documents and specifications. A sustained institutional segmentation of curriculum work accompanies the fragmentation of the curriculum. A network of contributors in politics, the public and administration, teacher training and further training, academia, and schools is replacing individual authors and commissions.

In these differentiation processes, the curriculum has gone from being a key document of programmatic intentions as understandable to an interface in a network of diverse curricular ties, each of which proclaims its settings and expectations and claims its legitimacy and achievements. When something is taught in class, this can be due to the curriculum, but just as easily could be due to the training of the teachers, the materials used, local habits, the traditions of the subject, the preferences of the teachers, or even a mixture of various of these elements. As a rule, the individual components and levels are in a *relationship of negative coordination* with each other, i.e., their relationship only becomes thematic when they hinder or even exclude each other.

Anyone relying on an approved textbook, therefore, does not necessarily need to know the underlying syllabus.[6] As a basic mode of curriculum binding, negative coordination creates scope for many things that would not yet be possible at all levels and in all forms of codification but also makes targeted changes more difficult.

In this fragmented structure of curriculum work, almost everything is constantly in motion. Curriculum decisions are not just made and documented once but are constantly being revisited and reworked. Hardly any curriculum remains valid for the duration of compulsory schooling; hardly any textbook remains unchanged for years; hardly any school law lasts a decade without being amended, etc. The expansion of the field and the multiplication of possibilities have led to a weakening of the binding force of individual decisions. In recent years, this has accelerated very different, almost opposing movements at the individual level (see table below). On the one hand, in the political-programmatic discourse, the question of the concentration of educational purposes has come to the fore: what is the indispensable core of the curriculum, what are the core problems of the future to which schools should respond, and what are the key qualifications required for this?

Decision fields of curriculum work (excerpt from the topic)

Political	Social traditions: Cultural heritage *(specialized sciences)*	Educational mission	Social expectations: Futures *(core problems)*
Programmatic	Programmed heritage: Secondary curriculum links	*(planning sovereignty)* **Syllabus** (Curriculum) *(freedom of method)*	Programmed expectations: Educational planning
Practical	*(school subjects)* Disciplined heritage Disciplinary propaedeutics	School-based educational mission School propaedeutics	*(everyday experience)* School-based expectations Lifeworld propaedeutics

The problem is by no means new. Since the beginning of the 19th century, the call for the concentration of teaching material has been constant, as has the

[6] This connection also explains the sometimes astonishing lack of knowledge that teachers have of the current curriculum. They only need to know and use it if something has become problematic in their lessons.

demand to create space for new challenges. However, the attempt at concentration is obviously limited by the lack of a generally recognized educational ideal from which concentration would appear possible without constraint. The comprehensive dialogue on models of teaching, which has accompanied the Swiss, German, or Norwegian curriculum reforms, for example, is an expression of the search for new forms of programmatic concentration below the threshold of generally binding educational ideals. However, catalogues of typical epochal problems (Klafki) and cultural models (Hernes) are just as incapable as key qualifications of convincingly indicating which school subject matter is suitable or absolutely necessary for dealing with them and what does not need to be taught. In the effort to concentrate, tradition and future remain unconnected regarding subject matter. Sometimes, as in, for example, the Danish curriculum work, this leads to separately formulated abilities and skills of the most general kind (seeing, speaking, analyzing, etc.) being given binding force, but not the selection of subject matter in curricula based on them.

On the other hand, a didactic culture of openness has developed, not least against the didactic density and abundance of material in the curricula and other curriculum-like commitments, which attempts to keep lessons open to new impulses beyond the boundaries of subjects, classrooms, and school buildings and to create coherence and clarity in lessons through shared experience and visualization. Even if this culture initially developed as a methodical opening of lessons, which does not necessarily contravene the requirements of the respective curricula, it almost inevitably comes into conflict with the endeavor to achieve binding concentration if this concentration is not so successful that it creates the necessary freedom for the openings. However, in the history of curriculum reforms, there has never been a concentration that reduces the material in curricula and other levels to such an extent that the average lesson is not already overburdened. This would require an equally far-reaching concentration in the political and programmatic discourse, a decision between conflicting traditions and future intentions. This would, at best, possibly be on behalf of individual interest groups—or reducing school subject matter to an inadequate lowest common denominator.

Caught between concentration and opening up, curriculum work now finds itself in a strained attempt to hold together what belongs together but cannot grow together. Every new guideline commission, curriculum group,

or textbook production is faced with the task of working out a teachable compromise from the multitude of possible and valid orientations and fixations. As is often the case in social systems, the incompatibility of demands is mitigated by fragmenting their processing. In concrete terms, this means that in school systems traditionally characterized by centralized curriculum specifications, there is a return to ideas of the school as a place of autonomous curriculum design. The local profiling of schools is given a focus and openness that is no longer successful for the whole and perhaps cannot succeed. Under the heading of organizational development, what was taken for granted in curriculum work until the end of the 19th century is being revived, namely the explicit local shaping of the centrally prescribed framework. Apart from the fact that the local curriculum culture required for this must first be re-established, this does not reduce the requirements for curriculum work at the upstream levels unless the return to local curriculum work also means the surrender of the school to the locally superior powers in the school and living environment. Curriculum work in the traditionally centralized systems is therefore faced with the task of formulating curriculum cores that sufficiently meet the political and programmatic expectations of concentration and, at the same time, allow schools autonomy.

Conversely, systems with strong traditions of local curriculum sovereignty (for example, in the United States or England and Wales) have been under increasing pressure in recent years to make such unifying cores visible, if not measurable. In other words, local traditions are being reshaped, if not displaced, by centralized planning and control on an unprecedented scale. If such centralization movements are not to level out all local pedagogical freedom, curriculum work must first introduce the instruments of didactic autonomy, the constitutive division of labor of political, programmatic, and practical curriculum work. In addition, in some countries, such as Denmark, there are still ideas of largely dispensing with centralized control and leaving curricular decision-making freedom to the individual school authorities and schools. The effect of local curriculum sovereignty is, of course, dependent on its social context. Systems without a core and control inevitably assimilate to their environment, i.e., organizational development without a core of centrally set curriculum guidelines leads to social and local variance in the school system under competitive conditions, which is difficult to reconcile with an equal right to education for all.

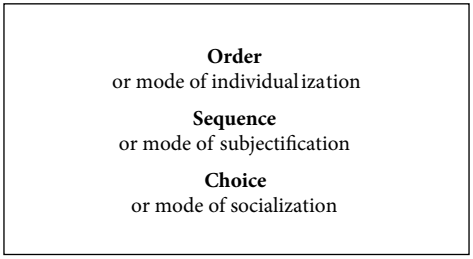
III

So far, we have described curriculum work as a socially organized transformation of material, a fragmented transformation of socially available knowledge into a corpus of subject matter. In the following, we describe this process as a phenomenon related to the philosophy of education and the sociology of knowledge.

Measured against the actual and potential changes that curriculum work brings about in schools, it is hard to understand the excitement that the development and introduction of new curricula causes or continues to cause, not only among teachers but also among parents and politicians, the media, and associations. In most cases, most lessons have been tried and tested until the curriculum can continue unchanged. The excitement can only be understood if one realizes what curriculum work is about in political and programmatic terms. It is about much more than just replacing some contents with others, shifting a few accents, placing a little more emphasis on species studies or spelling skills, emphasizing chronology a little more than structural-historical analyses, or having heard something about ecological balance, AIDS, or genetic engineering dangers and possibilities in around ten of the almost 800–900 lessons that young people will have completed by the end of the ninth school year. A look at the major events that triggered some of the curriculum revisions is more likely to reveal what is at stake. From the World Exhibition of 1874, the Sputnik shock, the Japanese challenge of a "nation at risk" to the collapse of the Soviet empire, the reunification of Germany and the European Union, it is often major social and societal events that can promote or characterize curriculum revisions. These are moments that make it seem necessary for society as a whole to reassure itself or even reorient itself.

With this context in mind, we understand curriculum work as part of the self-thematization of a society in which it creates an image of itself, an image of what it considers important and meaningful, what makes sense to learn and be able to do, and what to know and discuss. Curricula are thus to be understood as identity concepts of societies, through which their members (especially those who are growing up) define themselves, agreeing, demarcating, opposing, or rejecting. From this perspective, curriculum work appears to be an act that confers meaning. What is included in the curriculum, what is assigned a place in the structure of materials and objects of this kind, is thereby given social significance and validity.

It is obvious that in democratically organized societies, this kind of meaning-making cannot be left to a small group of specialists in the long term. The more openly a society sees itself and the more self-confidently its members participate in it, the more actively broad sections of society will also want to participate, and do, in this specific educational policy sub-process of creating shared meaning. Here, it becomes clear why curriculum work in dynamic societies is an inconclusive process, even if the basic requirements of school education (such as basic elementary knowledge or the structure of learning areas) in the compulsory school sector remain the same, at least over long periods. Relevance is and remains precarious. A subject's relevance to the curriculum is not inherent to any one subject but has to be determined or constructed under the prevailing conditions.



Levels of meaning conferral and meaning production

We can distinguish three basic forms of how curriculum work produces identity-guaranteeing meaning and validity via content and materials, techniques and perspectives, and knowledge and skills (Figure above). Totality and universality are classic requirements for curriculum structures. They guarantee the validity and significance of what has found its place in them far beyond what each subject could claim and represent on its own and without this organizational context. For example, a subject can continue to benefit from the meaning-giving power of the curriculum, even if it has long since lost its original real-social, extracurricular, and practical meaning. It remains significant as part of the order, which would not be the same without it. And it is correspondingly difficult to remove content or material from the curriculum. Not unjustifiably, it disrupts the established order far beyond the individual subject.

Where the organized juxtaposition is no longer sufficient to process the abundance of meaning and validity adequately, the time dimension opens up another basic form of producing meaning and validity through content. Like natural acquisition sequences or sequences based on learning psychology, it should be possible to reconcile what can be taught with what can be learned. Since orders are chronically precarious, and every new realization threatens the entire order structure, such sequences of partial orders provide relief. What constitutes a reasonable sequence is determined by factual coherence and consistency and by its relation to the learning and developing subject. The natural course, age-appropriate material, etc. provide the curriculum work with meaningful ciphers.[7] This subjectification corresponds to the change in the idea of education: while wisdom represents the educational ideal of an ordered world that allows for the smooth and knowledgeable management of circumstances, education as an idea starts with the subject itself, the all-round development of its possibilities for individual appropriation and creation of the world.

Finally, there is a third form. It is based on the social dimension of the acts that confer meaning and validity. When the ideas of subjectivity and its genesis are sufficiently differentiated, the social character of the choice itself finally comes to light. It becomes apparent that other things can be chosen, and others choose other things. The criteria of selection and their procedures become thematic and are explicitly regulated. Content and material are given meaning and validity through a procedure recognized as legitimate for their inclusion in the curriculum. Such legitimization ultimately corresponds to a procedural idea of education that focuses on learning itself. Education is characterized by the ability to learn, where permanent renewal and relearning must be expected.

Even if we can identify a sequence of these three basic forms in the history of the curriculum, the sequence of order, sequence, and selection is not to be understood as substitutive, but as additive and expanding. The order aspect does not already contain the sensible sequence of appropriation; selection procedures remain dependent on organizational structures on the subject

[7] The Herbartians' cultural level curriculum represents a particularly expressive form of such meaning conferral. The parallelism of ontogeny and phylogeny can still be found in various forms in educational literature today.

dimension. It is also easy to show that individual themes and contents acquire meaning and validity over time through other acts that confer validity. They move through the modalities. As a rule, new topics gain initial significance through arguments of usefulness before they are recognized as beautiful and pictorial and finally as valuable.

However, this does not adequately characterize curriculum work; beyond creating meaning and conferring significance—as described above—it is also always an act of management and administration, at least in modern public-school systems.[8] Order, sequence, and selection are made permanent in various forms of institutionalization and codification. Some of these codifications have a logic of their own that permeates all levels, forcing curriculum work to make far-reaching subsequent decisions, such as the decisions to bundle the subject matter into subjects, to distribute it across year groups, and, in practical teaching work, to limit selection decisions to alternatives within this localization and measurement. Cross-cutting topics, such as those anchored in the extracurricular world or scientific knowledge, can only unfold within this framework within narrow limits determined by negative coordination, namely only to the extent that they do not permanently damage the institutional orders and sequences on which they are based.

Historically, it can also be shown that certain modes of selection have prevailed due to the logic of administrative action, i.e., because certain selection procedures, in contrast to others, were more administrable and certain formations of order and sequence were more amenable to the logic of administrative action than others. For example, closed cultural-level curricula require a consistent coordination of teaching and learning, which cannot be guaranteed in fragmented systems. They have, therefore, remained a specialty of particular types of schools. The order of what is to be taught in the harmonization of age and grade level may be based on a counterfactual idealization of the maturation processes, but it allows for excellent, administratively relieving descriptions of learning achievements as age-appropriate

[8] J. Dolch's (1971–73) still unrivaled study of the curriculum of the West therefore breaks off, not by chance, on the threshold of the transition to state curriculum work. What until then had to be presented as a problem of reason or the appropriateness of orders and sequences could from then on be written as a problem of socially mediated selection, i.e., no longer as a pure history of the curriculum, but only as a social history of curriculum work.

ability or individual failure. Administration, therefore, does not take its place alongside the creation of meaning and conferral of significance through the curriculum, which can be obtained from an educational theory or sociology of knowledge perspective, but also determines its material possibilities and limits through the social location of the curriculum work.

IV

Curriculum work is articulated in three ways with the help of the modes just mentioned: They are identified in our topical cube as transmission, mediation, and qualification (future). In the multitude of possible problems, three systematic problems or tasks inevitably recur during their processing. Their solution only seems possible for a limited time, so these problems are constitutive. How they are approached, accentuated, and solved, the nature of their solution is essentially determined by which understanding of school is actualized and taken as a basis. Conversely, the prevailing understanding of school can be inferred from the solutions presented. The three problems are summarized here as the orthodoxy problem, the level problem, and the continuity problem.

Each of these problems has contributed to different accentuations of the curricula at different times. A classic example is the positioning of the orthodoxy problem regarding the relationship between socially aggregated knowledge and its formatting as school knowledge. Curriculum discourses on this topic deal, for example, with the promises and problems of science orientation or the possibilities of independent school science. A different emphasis is placed on the problem of continuity, on the relationship between what social development will require in the future and what is immediately problematic in everyday experience and our world. Here, for example, it is a question of detaching pupil and life-world orientation from local and individual ties or, conversely, making social conditions and problems that are not already visible in their impact on the individual horizon tractable. Finally, tensions between these orientations are also typical and chronic, for example, between the commitment to tradition and the search for everyday meaning in life. Sometimes these tensions lead to seemingly paradoxical solutions, for example, when, under the banner of lifeworld orientation, subjects are included in the curriculum that owe their significance not to

the learners' current everyday lives but to the tradition of a lifeworld that has largely disappeared, such as when bread baking or staring boxes become subject matter.

However, these basic tensions not only shape the curriculum but are also constitutive for school and teaching in general. The profound effect of these inherent tensions, which can only be dealt with in the curriculum but are not resolved, can be illustrated, for example, by the orthodoxy problem, i.e., the question of how knowledge becomes school knowledge. One of the typical learning and teaching experiences at school is the discovery that, as a pupil, you disrupt the lesson a) if you know too much and b) if you have insights that do not appear in the textbook. This is not just a whimsical curiosity but a fundamental feature of learning at school. School is constituted by knowledge, more precisely by correct, tried, and tested prior knowledge. The accuracy of such knowledge justifies that pupils are encouraged to spend a thousand or more hours working together on predetermined topics and content. What is known with certainty is what can be taught, *ta mathemata*. In this sense, one can say that knowledge lends itself to school knowledge when it is an element of a tried and tested doctrine, i.e., doctrinal in the literal sense or scholastic. Such an inner connection between orthodoxy and school knowledge also appears in the etymology of the word "doctrine": Gothic "laisjan" is related to the German word "Gleise" (rail way tracks), the prescribed safe path. The historically first form of school teaching and learning is also the commentary, the principle of regulating discourse that only allows the new to be said as the old and already known is properly understood. It is also worth recalling the sociological findings on the codification of knowledge and the maturity of a science, which occurs when a teachable basic stock of knowledge is codified and can be removed from the revolving cognitive process for the time being.

Pestalozzi dreamt the classic pedagogical dream of how the orthodoxy problem could be solved "naturally" in his elementary method, with the help of which the pupils construct the science they are to learn. More recent constructivist concepts, with their assertion of the identity of learner and researcher, prove that this dream is still being realized. They are all based on the hope that the coincidence of cognition and teaching that was lost in the post-Socratic modern age can be re-established in the learning process. The dilemma is, of course, that in the constitutive orthodoxy of school knowledge,

openness is not a given; deviations from the desired learning outcome appear as errors or mistakes but not as discoveries that have possibly not yet been incorporated into school wisdom.

Analogous to the difference between knowledge and school knowledge is the experience that school education is not the whole of education, that those who have only gone to school a little can be educated. Those who have completed a university degree can be uneducated. Organized school education often fails to reach its recipients even when they are exposed to it on a long-term basis. Such statements are not simply a game with different meanings of education; rather, it is one of the substantial assumptions of school education work that such differences in meaning could and should be cancelled out. In other words, school education really does become what it is intended to be, for instance, humane education.

The difference is based on the irrevocable difference between the *curriculum vitae* and the *curriculum scholasticum*. This gives rise to the second systematic problem of curriculum work. How can the process of individual appropriation be socially performed, institutionalized, and organized in a supra-individual course to become biographically effective? Three curricular solutions are available here, each emphasizing the systematic difference between education and school education differently. Learning and development stages postulate a convergence of individual and social appropriation that can be utilized in schools and curricula. Cultural levels build on such a convergence of individual and genre-historical educational processes. Finally, school levels presuppose the same convergence of individual learning strategies and administratively manageable teaching sequences. All three approaches are constitutive of the curricular reconstruction of educational processes. The assumed degree of convergence and the awareness of the remaining difference in these reconstructions determine the understanding of the school.

Comenius dreamt the classic pedagogical dream about this systematic problem of curriculum work in his *Pampaedia*. All attempts to reconcile the gradation of learning and the layers of what is to be taught in spirals, lines, or competence progressions prove that it continues to be dreamt. Implicitly, they underlie all continuity and transfer assertions about the preschool and extracurricular significance of school learning processes. Here, too, we can again draw on our everyday experience to introduce the third of the systematic problems of curriculum work, the continuity problem. School is not life.

What is important at school is not equally important in life and vice versa. Different laws apply even on the way to school than in a math lesson. Here, too, it is not anecdotal differences that need to be emphasized, but differences constitutive of school. If the identification of core or key problems of a society or epoch (Klafki) is also intended to ensure the current and future significance of school learning, as is postulated today in a series of curriculum revisions, the assumption is made that analogous relevance criteria apply inside and outside school. However, it is uncertain whether what can be identified as a core problem today will still be one tomorrow.

Another difference seems even more important. For example, to understand a core social problem such as climate change, learning processes have to be initiated at schools that are only linked to this core problem to a very limited extent. In any case, it seems impossible to maintain an extracurricular involvement in long-term school learning processes about chemical bonds and their valences, deterministic or chaotic system formation, etc., which is conducive to learning. In short, every learning appropriation, comparable to research-based development work, develops its logic, time, and meaning relationships in which those practical and extracurricular relevancies must be suspended. The learning-specific conditioning of the subject matter, its learning-methodological disciplining, can only be cancelled out at the price of learning and understanding itself. The core problem of ecological equilibrium is thus rightly and yet systematically distorted into the school problem of the school garden biotope.

After all, what is learned in dealing with the core problems of society is far from being the expertise required to understand and solve them. With regard to core problems of extracurricular reality, the topics and materials are often practically and thematically interlinked. On the other hand, learning at school is often fragmented and organized by discipline and method. In interdisciplinary learning, the convergence of methodologically disciplined processing and practically relevant problem-solving is assumed. Such convergence is not merely highly questionable, as it asserts the alignment of practical and epistemological interests, an assumption fiercely contested historically and systematically in the critique of science. The curricular assumption that it could be the topics through which learning finds its context is also questionable. In their diversity of perspectives, topics themselves cannot guide the selectivity of learning and create the overarching combination of the various

possible learning experiences into a learnable whole from topic to topic. For the pupils, it is impossible to tell from the topics themselves which experiences on these topics will retain significance in the further course of school and education and which will not. However, it is precisely the continuity of experience that the curriculum has to secure inter-individually (according to Dewey, for example) that ensures that a common learning process becomes visible in the diversity of what can be experienced in the classroom. Historically, it was the disciplines that created this kind of learning continuity. "Disciplines are knowledge organised for teaching" (R. Phenix). Only with the subjects did it become possible to integrate topics and materials from the diversity of what can be taught to create continuity for learning.

In curricular terms, another solution strategy for the continuity problem has recently been discussed under the heading of key qualifications. Key qualifications assume the convergence of school learning and practical problem-solving skills via formal aspects of learning. A school that defines itself less in terms of content and more in terms of procedures and learning methods may represent an innovation for modern times, but it can also fall back on a very old classical version of organized teaching and learning: rhetoric. The focus on key qualifications has a double cost: if it is not just about formal artistry, the question of continuity and meaningful material contexts remains unresolved. In curriculum practice, the easily achievable consensus on key qualifications leads to the dematerialization of the curriculum discourse and—as seen in the Danish example—curricula that do not reveal any context for the content to be learned.

However, even this solution is outside the classic pedagogical dream of the unity of school and life, which has been the guiding principle of most reformist and anti-statist attempts at a school of life since Pestalozzi. The transformation of material into school material cannot be avoided. This recontextualization can only take place more or less consciously and with understanding. There is no question that extracurricular life is also educational, but it does not have the qualities that made school learning the norm for the socially organized parts of the learning process.[9] Whether the curricular detail work of transforming material is done with regard to problems of transmission, educational problems, or continuity problems,

[9] For a concise and pointed comparison, see Prange 1995.

school remains the purpose to be understood and accentuated in its way, especially in curriculum work.

V

Despite all the differentiation and professionalization, curriculum work has long since reached a level of complexity that is almost impossible to explain to laypeople and difficult to interpret even for experts. For this reason, curriculum theory cannot be expected to clear up the difficulties or suggest solutions in an easily comprehensible form. Perhaps, on the contrary, its task is to banish the surplus of structural and planning problems that are inherent in the individual planning processes. These problems are hardly ever articulated, to such an extent that questions about the meaning and significance of teaching can once again be asked appropriately. Even a scheme such as the Aarau curriculum standard, with its dimensions and layers, can only begin to capture the complexity of the process. It reflects the recurring, structurally unavoidable problems but leaves out the many questions that arise in each case. It is not yet possible to understand the curriculum and the education it is intended to provide. Perhaps in the future, as the Scandinavian curricula of recent years have demonstrated in excellent form, we will regain some of the imagery from which education and the curriculum problem originated.

References

Gundem, B.B. (1995). *Laereplanpraxis og Laereplanteori [Curriculum practice and curriculum theory]*. Universitetsforlag.

Haft, H., & Hopmann, S. (1989). Sisyphos im Amt. Zum "sozialen System" staatlicher Lehrplanarbeit [Sisyphus in office. On the "social system" of state curriculum work]. *Bildung und Erziehung 3*, 5–20

Haft, H., & Hopmann, S. (Eds) (1990). Case Studies in Curriculum Administration History. The Falmer Press.

Hopmann, S. (1988). *Lehrplanarbeit als administratives Handeln [Curriculum work as administrative action]*. IPN.

Hopmann, S. (1990a). Current structures of curriculum making and their impact on content. In B.B. Gundem, B.U. Engelsen & B. Karseth

(Eds), *Curriculum work and curriculum Content. Theory and Practice. Contemporary and historical perspectives* (pp. 158–180). Oslo University.

Hopmann, S. (Ed.) (1990b). Lehrplangeschichte International [International perspectives on curriculum history]. *Bildung und Erziehung 4*.

Hopmann, S., & Künzli, R. (1994) Topic of curriculum making. The Aarau curriculum standard. *Educational Research - Educational Practice 2*, 161–184.

Hopmann, S., & Künzli R. (Eds) (1992). Didaktik Renaissance [Didaktik renaissance]. *Bildung und Erziehung 2*.

Künzli, R, (Ed.) (1975). *Curriculumentwicklung. Begründung und Legitimation [Curriculum development. Justification and legitimization]*. Kösel.

Künzli, R. (1986). *Topik des Lehrplandenkens I: Architektonik des Lehrplanes: Ordnung und Wandel [The topic of curriculum thinking I: The architecture of the curriculum]*. Mende.

Künzli, R. (1988). Lehrplanung - der "unmögliche Diskurs" oder die Sicherung von Permanenz. [Curriculum planning - the "impossible discourse" or the assurance of permanence]. In S. Hopmann (Ed), *Zugänge zur Geschichte staatlicher Lehrplanarbeit. [Approaches to the history of state curriculum work]* (pp. 235–258). IPN.

Künzli, R. (1990). Didaktik zwischen Lehrplan und Unterricht [Didactics between curriculum and teaching]. In B. Adl-Amini & R. Künzli (Eds), *Didaktische Modelle und Unterrichtsplanung [Didactic models and lesson planning]*. (pp. 180–209). Juventa.

Menck, P. (1987). Lehrplanentwicklung nach Robinsohn. [Curriculum development according to Robinsohn]. *Zeitschrift für Pädagogik 3*, 362–380.

Prange, K. (1995). Die wirkliche Schule und das künstliche Leben [The real school and the artificial life]. *Zeitschrift für Pädagogik 3*, 327–334.

Rein, W. (1893/1988). Stichwort Lehrplanarbeit [Keyword "curriculum work"] (1893). Reprinted in S. Hopmann (ed.), *Zugänge zur Geschichte staatlicher Lehrplanarbeit [Approaches to the history of state curriculum work]* (pp. 13–21). IPN.

Weniger, E. (1930/1952/1975). Theorie der Bildungsinhalte und des Lehrplans [Theory of educational content and the curriculum] (1930/52). Reprinted in E. Weniger. *Ausgewählte Schriften zur geisteswissenschaftlichen Pädagogik [Selected writings on pedagogy in the humanities]* (pp. 199–294). Seller.