

**REFLECTION OF CROSS-CURRICULAR IDEAS IN THE  
ESTONIAN CURRICULA OF GENERAL EDUCATION:  
AN HISTORICAL STUDY**

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**Abstract.** This study explores the development of a specific version of written curricula that have comprehensive general parts reflecting cross-curricular ideas in a holistic way. The curricular thinking was analysed in categories of organizational patterns and varieties of design, comprehensiveness, and lucidity of presentation. A comparative analysis was carried out in three phases, involving the reconstruction of general parts of Estonian curricula of elementary and basic education (from 1921 to 2002), outlining trends in presenting cross-curricular ideas in these curricula, and identifying the best practice while drawing some parallels with Finnish curricular approaches. The analysis revealed many positive trends in presenting cross-curricular ideas, as well as discrepancies and shortcomings to be avoided. The methodology of historical research used in this study is easily adjustable for analysing cross-curricular thinking in other curricular formats as well.

**Keywords:** curriculum typology, curriculum development, curriculum design, framework curriculum, cross-curricular ideas, general education

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## **1. Introduction**

Despite the evolution of curriculum theory since 1918, when Franklin Bobbitt (1918) published his work *The Curriculum*, actual curricular solutions are still based more on pragmatic considerations than on any comprehensive model drawn from existing theories. The school curricula in different countries are built upon diverse conceptual bases, which complicates international comparative studies. For example, comparing 18 national curricula of general education, Japanese researchers had to contend with a rather plain categorization of organizational structures of the curricula, discriminating between content- or topic-based, outcome-based, and a mixed approach (NIER 1999). Similarly, Kim and Marshall (2006), in their analysis

of curricular textbooks in the USA from the mid-1990s to early 2000s, confined their study to characterizing curricula as representing traditional scholarship revolving around Tyler's (1949/1969) theory, or as a reconceptualised scholarship representing diverse discourse in curricular thinking (2006:329).

The scarcity of international large-scale comparative studies of curricula of general education as entities reveals that identifying common denominators for comparisons is difficult. In reality, curricular thinking is more complex than any single theoretical model can encompass. Therefore, the historical studies analysing the development of curricular thinking typically focus on the evolution of specific features rather than try to analyse curricula as entities (e.g. Boullough and Kridel 2003, Hopmann 2003, Terwel 2005, and others).

This study is an attempt to learn the historical development of curricular thinking in a specific format of written curricula. In this format curricula contain comprehensive explanatory or general parts reflecting cross-curricular ideas in addition to those offered in subject syllabi. One can find such curricula practice in countries like Finland, Germany (Bavaria), Norway and Estonia. The study investigates the evolution of the tradition in the Estonian national curricula from 1921 to 2002.

The main objectives of this study are to describe the major developmental changes in the Estonian curricular tradition and to identify the best practice while drawing some parallels with similar curricular approaches in other countries, especially in Finland, whose system of general education is considered amongst the best in the world (McKinsey & Company 2007).

The comparative analysis of curricula is carried out in three phases. First, cross-curricular thinking in the general parts of curricula used in Estonia is reconstructed. Second, trends in presenting cross-curricular ideas by categories are outlined. Third, positive solutions are sought, drawing parallels with Finnish curricular solutions.

Before starting the analysis, the notion of curriculum and its characteristic features should be specified as analytic tools for this study.

## 2. The notions of curriculum and curriculum studies

Throughout its history, definition and organisation of curriculum has been subject to enormous philosophical, psychological and sociological disagreements. Characteristically, two major figures of the early days of curriculum studies, Bobbitt (1918) and Dewey (1916), fundamentally diverged about what curriculum amounts to and means.

For Bobbitt (1918/2004), curriculum was primarily the series of consciously directed training experiences that the schools use to develop students' abilities to *be in all respects what adults should be*. Dewey contested this overtly behaviouristic approach, seeing education as coming through the stimulation of the child's powers by the demands of the social situations in which he finds himself (Dewey 1897/2004). Despite the disparities, it is argued that by the 1930s, school curriculum was mostly dominated by psychological and social-psychological considerations,

almost totally dismissing philosophical, political, and ethical dimensions (Popkewitz 1987:16).

In the 1950s and 1960s, fundamental social and scientific changes appeared which immensely affected the curriculum development. The *explosion of knowledge*, sharply perceived on both sides of the Atlantic (Phillips 1987:122–124) forced theorists to reconsider the legitimation principles of curriculum and the foundations of science and knowledge in general. As Phillips (1987:123) put it, it was not possible to continue cramming more and more topics into the curriculum. Concurrent with the demise of positivism, a number of new approaches to the curriculum development were born. Two opposite conceptions are particularly exemplary – first of them primarily epistemological and the other one sociological.

First, facing the need to distinguish between more and less relevant knowledge contained in the curriculum, the concept of *structure of knowledge* was conceived in the early 1960s by Joseph Schwab (1969) in the US and, some years later, more thoroughly by Paul Hirst and Richard Peters in Great Britain (1970). According to Hirst and Peters, curriculum should be grounded on certain intrinsically coherent and worthwhile activities, rather than on socially or politically determined tasks or capacities such as *creativity* or *critical thinking*. These activities, in turn, should be organised according to certain *forms of knowledge* (Hirst and Peters 1970:61–63). The epistemologically coherent organisation of knowledge was considered as the primary tool for developing rationality and personal autonomy. Hirst, however, admitted that relating these forms to the organisation of the school curriculum is a matter of practical planning, which involves other considerations besides the philosophical (Hirst 1974:43).

In the 1960s and 1970s, another influential approach was developed which contested both the allegedly behaviourist psychology and the epistemological absolutism in curriculum studies – the *new sociology of education*. According to the sociological argument, the earlier concepts of curriculum had generally neglected the differences in the way the curriculum was received according to one's social background and group affiliation. The leader of the *new sociology of education*, Michael Young (1971), directly declared that what 'does' and 'does not' count as 'science' depends on the social meaning given to science, which will vary not only historically and cross-culturally, but within societies and situationally (1971:21). Other outstanding sociologists (Bernstein 1971, Bourdieu 1971) also provided a profound review of how school curricula in different countries contribute to reproduction of experience in a predestined form representing certain patterns of power and control.

Consequently, as there is no higher principle for organisation of the curriculum, the content and transmission principles should be reconsidered – so the argument goes – in a socially justified and non-oppressive way. However, rather than contributing to the integrity of curriculum theory, the sociologically inclined concepts, often together with the allegedly relativist overtone (e.g. Moore 2000), have blurred and diversified the general picture. Not least, pros and cons of postmodernism have been involved in the debate.

So, it is unsurprising that, some 80 years after the first attempts to establish curriculum development as a theoretical discipline, curriculum researchers have to admit their failure to define the field satisfactorily. Exemplary is the definition of Westbury:

*...curriculum is the symbolic centre of a loosely coupled system of ideologies, symbols, organizational forms, mandates, and subject and classroom practices that instantiates collective, and often differing, understandings about what is to be valued about the idea and the ongoing practice of education (2003:532).*

Other researchers, while attempting to render a comprehensive definition of curriculum, have not been much more specific (e.g. Johnson et al 2005:423, Valverde 2003:524).

Obviously, the complexity and vagueness of the notion of curriculum and practitioners' reliance on common sense rather than on the clear-cut theoretical models in curriculum development, have made historical studies in the field complicated. However, the presented historical overview, though apparently a simplification, is necessary to provide context for the possible accentuations and set of priorities introduced in curricula.

For studying the evolution of cross-curricular ideas in written curricula of a country, the scope and dimensions of relevant curricular ideas that might potentially be reflected in their general parts should be identified. One way to do this is to analyse them in terms of major curricular categories introduced by different curriculum theorists.

### 3. Tools for curriculum analysis

#### 3.1. Curricular typologies

There have been numerous typologies to characterize school curricula at high levels of generalization. McNeil (1992) distinguishes four curricular patterns: academic, social reconstructionist, humanistic, and technological. Johnson and his colleagues distinguish between subject-centred, broad fields, core, spiral, problem-based, mastery, and standard-based curricula (Johnson, et al. 2005:427–428). These categories inform educators about possible curricular orientations at a rather high level of generalization and provide them with tools for analysing school curricula from various perspectives.

#### 3.2. Curricular dimensions

As another theoretical framework for characterizing curricula, Kelly (1999: 2–7) introduced notions of total, hidden, planned (versus received), and formal curriculum.

The *total curriculum*, by Kelly, characterizes the scope of planning. It may extend from the plain listing of the content in subject syllabi to the total programme of an educational institution, including the social education.

The *hidden curriculum* characterizes a curriculum from the perspective of a purposeful learning of things “which are not in themselves overtly included in the

planning or even in the consciousness of those responsible for the arrangements” (Kelly 1999:4). So the difference would be whether the curriculum reflects only explicit educational activities, or it purposefully foresees activities leading to hidden learning, also.

Kelly’s third dimension – *planned curriculum versus received curriculum* – characterizes the coherence between the official curriculum brought in by authorities, and the implemented curriculum. Many countries, for the sake of better adjustment of curricula to local conditions, have introduced framework curricula at the national level serving as guidelines for compiling regional or school curricula (e.g. NIER 1999). Despite the traditions of a particular country as to whether major curricular decisions are made by a central or local authority, all curricular materials are subject to interpretation and individual application (Schwartz 2006). Theoretically, a curriculum’s progress from planning to its being attained by pupils takes the forms of intended, implemented, and attained curriculum (Goodlad, Klein, and Tye 1979). In this sense, every curriculum can be characterized as to what extent pupils attain its objectives, or, at least, via the measures implemented by teachers to achieve its objectives.

Kelly’s fourth dimension – *formal curriculum versus informal curriculum* – expresses the extent to which a formal curriculum reflects informal education that usually takes place on a voluntary basis beyond the allocated teaching period. It is considered as ‘extracurricular’ activities. These are typically out-of-class and out-of-school activities like working in interest groups, participating in club activities, etc, all which play relevant roles in pupils’ education and demanding a certain contribution from teachers.

### 3.3. Curricular components

The third theoretical framework for curriculum analysis can be found in Tyler’s famous rationale (1949/1969), which defines a curriculum in terms of its components as a whole. Tyler says that any curriculum should solve the issues of (1) stating educational objectives, (2) selecting and (3) organizing learning experiences, and (4) assessing the achievement of objectives. Taba (1962) elaborated on Tyler’s theory and introduced the notion of multiple educational objectives broken into categories of basic knowledge, thinking skills, attitudes, and academic skills. Also, she replaced Tyler’s notion of educational or learning experience with a more practical notion of content of learning. Tyler’s and Taba’s theories both suggest finding answers to four major questions: how educational aims and objectives are identified; what learning content and methods are selected; and what measures are taken for testing the achievement of the learning objectives.

### 3.4. Categories of analysis

Though far from being all-comprehensive, the introduced theoretical concepts enable the characterizing of curricula from the perspectives of: (1) organizational pattern or variety of design, (2) comprehensiveness and practicality (in Kelly’s

four curricular dimensions), and (3) quality of reflecting curricular key components. If the general part of a curriculum is written with an aim to characterize this curriculum and to introduce ideas common to all its syllabi, it should reflect, in a certain way, conceptual thinking from these three perspectives. The categories of analysis adapted to the needs of this study are concisely presented in Table 1, along with questions to be answered. The last category of lucidity was introduced for describing the overall quality or impression that the general part produces with its principles, instructions and suggestions.

**Table 1. Categories for analysing the reflection of cross-curricular ideas**

Category of analysis	Authors	How is this idea of curricular thinking reflected in its general part?
<i>Organizational pattern</i> (academic, social reconstruction, humanistic and technological)	McNeil (1992)	Which is the dominating pattern of this curriculum?
<i>Variety of curriculum design</i> (subject-centred, broad fields, core, spiral, problem-based, mastery, and standard-based curricula)	Johnson et al. (2005)	Which is the dominating design version of this curriculum?
<i>Comprehensiveness of the curriculum document. Provision for the ...</i> ... education programme as a whole ... hidden curriculum ... informal curriculum ... implementation	Kelly (1999)	Is this a total curriculum or just a collection of subject syllabi? What is its contribution to the implementation of the hidden curriculum? What are the measures for ensuring the implementation of the planned curriculum? Does the curriculum provide guidelines for out-of-classroom and out-of-school education?
<i>Presence and quality of the key curricular components</i> Aims and objectives Content of instruction Methods of instruction Provision for assessing learning outcomes <i>Lucidity</i>	Tyler (1949), Taba (1962)	Are the general aims of education and subject objectives introduced? Are the principles underlying selection of the content and its organization adequately described and justified? Are the instructional methods described and justified? Is the assessment programme described and justified? How clearly and easily can the practitioners follow the presented ideas?

#### 4. Reconstruction of presenting cross-curricular ideas in the general parts of Estonian curricula (1921–2002)

The Estonian Republic was born in 1918. Though a 3-year compulsory education system had been introduced already in 1870, it primarily served the ideological and educational needs of the Russian empire. The young national republic needed a new education policy, legislation, and school infrastructure (e.g. Põld 1917, Viljak 1917). The new curriculum for a 6-year compulsory education programme introduced in 1921 can be considered as the first step towards the foundation of the Estonian tradition of developing and designing national curricula for general education. This tradition was interrupted by the Nazi occupation (1941–44) and by the Soviet occupations (1940–41 and 1944–1991). However, all curriculum documents developed under the leadership of Estonian authorities have had a more or less clearly outlined general part or cross-curriculum explanatory notes overarching subject syllabi. Also, all Estonian national curricula for general education have been more or less framework curricula, except those used during the Soviet period, when educational requirements and the subject syllabi were centralized and prescribed in details. The validation years and general character of Estonian curricula for compulsory education from 1921–2002 are given in Table 2.

##### 4.1. Curriculum and syllabi for elementary schools (1921)

The general explanatory note of the first Estonian curriculum for elementary schools (Haridusministeerium 1921) is only a two-page text, but it reflects many relevant cross-curricular ideas. It starts with a few explanatory sentences on the new educational situation and the nature of the curriculum. Then it says: "First of all, it should be taken into consideration, when using the syllabi, that no school subject can exist independently, separated from other subjects like any science or art can in real life. They all deal with the same world, but from a specific point of view and often using specific methods" (1921:3). Next, the general part emphasizes the need for taking into account the content of instruction of other subjects and avoiding unnecessary duplications when teaching. The recommendations for a broad fields approach and using the idea of thematic focusing are clearly expressed:

*The younger the class the more the subjects should be taught by a single teacher. It should not be forgotten that all subjects could find a common task because they have to educate the same heads, hearts and minds. This task has to broaden and deepen along with the development of the pupils, starting with noticing the nearest environment of a pupil and leads to the elaboration of a realistic worldview (1921:3).*

Attention was paid to enhancing the pupils' learning motivation in the first grades by engaging them in learning activities within their power.

The general part admits flexibility in observing the curricular requirements and suggests the observation of pupils' individual needs. Accordingly, the subject syllabi highlight the common core content and the content for advanced learning

**Table 2. Chronology of Estonian curricula for elementary and basic education**

Years of validation	Title	General character of the curriculum	Authority responsible for the development
1921	Curriculum and syllabi for elementary schools	Guidelines	Ministry of Education ( <i>Haridusministeerium</i> )
1928 1937	Curricula for elementary schools	Guidelines	
1938	Curricula for elementary and secondary schools and gymnasia		
1940	Curriculum for elementary schools	Collections of subject syllabi with a biased syllabus for teaching history and explanatory notes	People's Commissariat of Education ( <i>Hariduse Rahvakomissariaat</i> )
1942	Curriculum for elementary schools	Subject syllabi with a modified syllabus for teaching Estonian history	Directorate of Education ( <i>Rahvaharidusdirektoorium</i> )
1944 – 1991	Yearly instructional plans and subject syllabi, accompanied with framework guideline for communist education	Rigorously centralized with few exceptions for teaching national languages and culture in the Baltic states	Ministry of Education of the Soviet Union
1992	Curriculum project for basic education	Framework curricula	Estonian Centre for Educational Development
1996	National framework curriculum for basic and secondary education		Ministry of Education
2002	National framework curriculum for basic education and gymnasia		Ministry of Education and Research ( <i>Haridus- ja teadusministeerium</i> )

for pupils continuing their education in secondary schools. Learning objectives and assessment tools are not formally introduced.

#### 4.2. Curriculum for elementary schools (1928)

The general part of the second Estonian curriculum for elementary education (Haridusministeerium 1928) is more comprehensive than the previous one. The general part defines the aims and tasks of elementary education along with references to the guiding pedagogical principles and gives general recommendations for selecting the content of subjects and organizing teaching. The document emphasizes that "...the major task of elementary schools is education. The elementary schooling in integrity must be aimed at children's physical and intellectual development and moral integration resulting in the founding of a basis for the formation of persons with a clear world outlook, a reliable and kind



character, and effective capacity” (1928:1). Next, the definitions of educational aims, instructional objectives (in terms of knowledge and skills to be acquired), and guidelines for integrating the content for each subject syllabus are given. Quite a new element in this curriculum consists of general recommendations for organizing the pupils’ homework.

The general part of this curriculum reflects significant progress in expressing the need for the integration of instruction and education.

#### *4.3. Curriculum for elementary schools (1937)*

The general part of the third version of the curriculum for elementary schools (Haridusministeerium 1937) is more concise and laconic than in the 1928 version. It states the general aims of education and focuses on the hidden impact of subject instruction on the moral and personal development of pupils and says, among other things: ”Instruction will introduce examples and models of individuals’ and nations’ behaviours and the shaping of their futures in order to explain and justify phenomena of social life, awaking in pupils a national loyalty and teaching them a volition for cooperation with fellow citizens” (1937:4). The emphasis of the 1928 curriculum on physical education is replaced with an education emphasis regarding all aspects of a developed person. The subsection ‘Principles of instructional management’ emphasises the need for integration of the separate subjects and admits the broad fields instructional approach in the earlier grades. The need for taking into account local conditions in planning instruction and for meeting pupils’ natural inclinations and capacities is emphasized. Also, guidelines for assigning homework to pupils and avoiding an overload are given. The general part ends thus: ”Education and instruction should always be aimed at understanding the pupil and seeing him or her in a holistic way” (1937:5). A new feature in this curriculum is a guideline for organising education in classroom teacher or adviser classes and for out-of-class activities.

#### *4.4. Curricula for elementary and secondary education and gymnasia (1938)*

The main purpose for publishing curricula for elementary and secondary education and gymnasia in a single volume (Haridusministeerium 1938) was a need for the harmonization of the core content taught in the final two grades of elementary schools and in the first two grades of the five-grade pro-gymnasium<sup>1</sup>.

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<sup>1</sup> The education reform begun in 1934 instituted two types of middle schools preparing pupils for continuing their education in a three-grade gymnasium. One of these was a three-grade school with a strong practical orientation based on a six-grade elementary education, and the other was a five-grade academically oriented pro-gymnasium admitting pupils who had completed four grades in elementary schools. The harmonized curriculum for grades five and six of elementary schools and grades one and two of pro-gymnasia allowed pupils who had graduated from an elementary school to continue their education in grade three of the pro-gymnasia. The new system of 12-grade secondary education replaced the former system of comprehensive secondary education consisting of a six-grade elementary education and of a five-grade secondary education (e.g. Andresen and Ots 2002).

The preface of this volume does not introduce principally new ideas, but rather gives recommendations on how to use existing curricula of elementary and secondary schools from the perspective of harmonizing subject syllabi.

#### *4.5. Curricula of general education introduced by the occupation authorities in 1940 and 1942*

Along with the incorporation of Estonia into the Soviet Union in 1940, the local educational authorities introduced temporary curricula for elementary and secondary schools that was meant to ensure the transfer of the Estonian system of general education to the Soviet system's principles and standards. The general part of the curricula for elementary schools (Hariduse ... 1940), by its structure, is not significantly different from the last version of the Estonian curricula for elementary education (Haridusministeerium 1937), except for its ideologically-biased orientation and guidelines for social education. The next curriculum for Estonian elementary schools was issued by the German occupation authorities during the war (Haridusdirektoorium 1942). This document was confined to listing the core content of compulsory school subjects without any general explanatory part.

#### *4.6. The period and nature of Soviet curricula 1944–1991*

During the Soviet period, school curricula in Estonia went through many modifications reflecting the Soviet authorities' educational policy: emphasizing the teaching of mathematics and sciences after the Sputnik launch in 1957, recurrent measures for increasing the role of vocational education in schools of general education, and the Russification (i.e. the prioritisation of teaching Russian language and culture) of schools from the end of the 1970s in those Soviet republics where Russian was not the pupils' native language. However, these curricula were always presented in the same way consisting of three separate documents:

(1) *a plan of instruction* – fixing subjects to be learned, distribution of them by grades, and number of classes per week (e.g. Strezikozin 1966);

(2) *subject programmes* (or syllabi) defining knowledge, skills and proficiencies to be acquired in a subject course, and content of divisions and themes and the time schedule of studies. The explanatory letter to the subject programmes described learning and educational objectives, the nature of instructional methods and organizational forms, links with other subjects, and class and out-of-class activities (e.g. *Programa* ... 1966);

(3) *a model plan of pupils' social* (Communist) *education* based on the theory of communist education (e.g. Boldyreva 1966).

All curriculum documents, textbooks and monographs on education had to observe and rigorously follow the canonized principles of Soviet instruction and education, and alternative ideas were not tolerated (e.g. Krull and Trasberg 2006). Therefore, the Soviet curriculum documents, though being in use for 50 years, had no need to explain concisely educational aims and approaches as would be necessary in the condition of a democratic plurality of ideas. Hence, these

documents present little interest for learning the traditions of writing general parts of curricula.

However, this does not mean that this long experience of politically biased and highly centralized educational management did not have any impact on the educational and curricular thinking in Estonia. For example, the Soviet practice of transmitting instructional requirements as separate subject syllabi favoured the encapsulation of school subjects, though the explanatory notes to each syllabus emphasized the importance of the integration of subjects. The long isolation from western educational thought meant that many ideas and concepts relevant for curriculum development, like aim-oriented learning ideology, changes in understanding the nature of learning and teaching, and many other innovative educational ideas remained unknown to Estonian educators for decades.

#### *4.7. Curriculum project for basic education (1992)<sup>2</sup>*

The curriculum signifies above all the transfer from the Soviet system to the national system of education. In 1991, Estonia regained independence, and soon the Estonian Law on Education (Riigikogu 1992) and the Law on Basic Schools and Gymnasiums (Riigikogu 1993) were passed. However, the new curricula introduced at the beginning of the 1990s retained many features of the Soviet curriculum traditions and consisted mostly of the modified subject syllabi introduced at the end of the Soviet period. In these syllabi, the Soviet ideological slogans and otherwise biased content were removed or replaced with more balanced views. The major change in the renewed curriculum for nine-year basic education (Unt and Läänemets 1992) was the introduction of a general explanatory part that reflected ideas pertaining to all subject syllabi. So, it: (a) explains the purpose of the document as a framework guideline, along with references to some tenets of curriculum theory; (b) defines general aims of basic education and school educational objectives; (c) lists pedagogical principles underlying the framework subject programmes; (d) and describes the structure of framework subject syllabi.

One of the six listed pedagogical principles calls "... to approach the different parts of the curriculum in an integrative way, for relating previously and newly learned subject knowledge, and for the areas of knowledge that are not taught in basic education as separate subjects (like economics, nature preservation, etc)" (Unt and Läänemets 1992:4). However, the ideas of thematic focusing so typical of the pre-WW II Estonian curricula for elementary education and the suggestions for using the broad fields approach in the early grades were not mentioned in this document.

#### *4.8. Curriculum for basic and secondary education (1996)*

The renewed curriculum for basic education (1992) was considered by many Estonian educators as not radical enough in comparison with those used at the end

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<sup>2</sup> Though this curriculum was never officially legitimized, it had a strong impact on the Estonian curricular thinking in the beginning of 1990ties.

of the Soviet period and not in line with the educational ideologies and policies in the industrialised democratic countries. The subsequent efforts of Estonian educators resulted in the elaboration of a principally new concept of the Estonian National Curriculum for basic and secondary education (Haridusministeerium 1996). The earlier tradition was vigorously revived, and the main educational and instructional ideas encompassing subject instruction were again outlined in a separate general part. The main innovations (in comparison with the previous versions that presented cross-curricular ideas in Estonian curricula) are the methodology for integrating instruction, the concept of general competences, and guidelines for designing school curricula. The methodology for promoting integration of subject instruction includes thematic focusing (i.e. gradually extending the relationship between the student and the outside world, starting from the home and ending with the global world), and the introduction of cross-curricular themes like environment, traffic education, selection of profession, and information and communication technologies. Also, an attempt was made to formalize general outcomes of education resulting from subject instruction and from out-of-class and -school activities. In all, three categories of competences were introduced: communication, value-related (attitudes), and activity competences (or general skills, including learning skills). The guidelines for organizing instruction by school levels became in some parts extremely detailed, prescriptive and formal. They list 19 general competences for pupils to be achieved by the end of the third grade, 17 by the sixth, 21 by the ninth, and 18 by the end of the twelfth grade. The text claims that "...the competences interconnect general aims of education with subject learning objectives ..." (1996:1963). However, no explanation is given regarding how this interconnection might take place in practice.

Although the introduced curriculum was considered to be radically innovative, according to many experts its general part remained formal and isolated from the subject syllabi it was meant to integrate (e.g. Kaldmaa 1996). A Finnish expert analysis report ordered by the Estonian Ministry of Education at the end of the 1990s recognised the progress made through the introduction of this curriculum, but the report also described many weaknesses in its ideology, stating amongst other things (Opetushallitus 1999):

*The theoretical justification of the general part of the Estonian curriculum is, especially in the light of contemporary approaches to learning and in comparison with the rest of the curriculum, scanty and written incoherently. Therefore, it precludes, in principle, that theory and practice could meet each other when the curriculum is applied.*

#### 4.9. Curriculum for basic education and gymnasia (2002)

The general part of the next Estonian national curriculum for general education (Haridus- ja... 2002) represents a further elaboration of the ideology adopted for the 1996 curriculum. It states in a similar way general aims for basic education and gymnasia without discriminating between these two levels of education. The list of educational aims itself was extended by two additional items (but without any

explanations about the principal difference with the list of aims in the 1996 curriculum or why this list is more appropriate). Furthermore, the general part of this curriculum was conceived as an act of the Estonian government, and thus it was executed as a legal document rigorously broken into sections and paragraphs. However, the curriculum's biggest innovation is its three-level system of competences introducing categories of general, subject and subject domain competences. The curriculum aims at achieving learning, activity, valuing, and self-determination skills as general competences. The subject competences are referred to as learning outcomes defined in the subject syllabi. Lastly, a paragraph on subject domain competences follows. Its introductory sentence explains that "thanks to general competences, subject competences and integration of instruction, the pupils acquire comprehensive domain competences" (2002:872). In all, competences for seven domains are listed – competence in natural sciences, social competence, reflection and interaction competence, communication, technological, cultural and mathematics competence. The paragraphs of competences are followed by foundations for integration, which are quite similar to the approach used in the 1996 curriculum, along with four cross-curricular themes.

The rest of the general part of the 2002 curriculum lists compulsory and elective subjects. It also provides guidelines for instructional and educational management, assessing learning outcomes, and for compiling school curricula. The general guidelines for instructional and educational management are followed by more detailed guides consisting of a mandatory distribution of lessons per week, guidelines for instructional activities and of a list of general competences to be achieved by the end of the school stages. However, the notion of learning underlying the entire curriculum is practically not addressed. The explanation that "...learning is a lifelong process, the awareness and purposefulness of which depend on the student's age and individuality..." (2002:875) carries practically no messages for teachers.

The specific guidelines for instructional and educational management follow a similar pattern as those for the 1996 curriculum, but the lists of general competences for the school stages have been modified. Unfortunately, as for the case of general aims, no explanation is given as to why these modifications and changes were introduced.

A strong feature of this curriculum's general part is that its guidelines for compiling school curricula are more concrete and clear in comparison with the 1996 curriculum. A disadvantage is that it became even more formal and incoherent regarding subject syllabi than the earlier version had been. Also, out-of-class and out-of-school education is virtually disregarded as are the work of class advising teachers, student homework as a part of instruction, and issues of mainstreaming those students with special needs.

## 5. Main trends in presenting cross-curricular ideas in Estonian curricula for general education

As argued (e.g. Reid 1997), curricula are mostly products of pragmatic thinking rather than derivations of a purposeful and conscious application of curriculum theories. This seems to apply well to the practice of Estonian curriculum design. The general parts of the introduced curricula reflect the pragmatic needs and interests of certain eras, or even personal preferences of the designers, rather than a systematic and consistent theoretical thinking. Bearing this in mind, the following analysis of reconstructions of the general parts of Estonian curricula reveals some patterns and trends in their development, where knowledge of them could be helpful in future curriculum work.

### 5.1. Organizational patterns and varieties of design

The analysis of texts of general parts and of the nature of subject syllabi confirms that all Estonian national curricula for general education, including the one introduced in 2002, have been academically oriented and subject centred core curricula with a humanistic orientation. The general parts of all these curricula, except that of 1992, admit a broad fields approach for the first school grades and emphasize cross-disciplinary thinking. An orientation to a standards-based approach appears in the 1996 curriculum, which is even further emphasized in the 2002 curriculum.

### 5.2. Comprehensiveness as provision for the...

*... education programme as a whole.* In the 1921 curriculum, the issues of social education are practically ignored. The 1928 curriculum already emphasizes the educational mission of the elementary school, and especially that of physical education. In the 1937 curriculum, the integrity of education is emphasized as all around development of pupils based on the synergy of teaching different subjects and other educational efforts. The 1992 curriculum substantially ignores the issues of social education as well as that of special education<sup>3</sup>. A radical change took place in the curricula of 1996 and 2002. Their general parts, especially that of 2002, propose complex measures for cross-curricular integration of instruction and introduce formal systems of competences as integral yields of school instruction and education. The 1996 curriculum provides some guidelines for developing curricula for pupils with special education needs, but the 2002 curriculum completely ignores the topic. There is a clear tendency towards a gradually

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<sup>3</sup> The lack of provision for special education as a cross-curricular theme in the 1992 Estonian curriculum for basic education would point to the fact that the mainstreaming of pupils with special needs had not yet become a practical need. The Soviet educational policy was oriented to the education of students with special needs in specialized schools, and Estonia, only recently free of the Soviet regime, could not take the risk of giving up the old system before creating conditions for introducing the new one.

increasing comprehensiveness of cross-curricular thinking as reflected in the general parts of curricula from 1921 to 2002.

... **hidden curriculum.** This issue is practically disregarded in the general part of the 1921 curriculum. However, the curricula of 1928 and 1937 clearly acknowledge the importance of the hidden impact of teaching and education on the development of well-rounded persons. Again, whereas the curriculum of 1992 disregards the issue of hidden learning, then in the curricula of 1996 and 2002 it is implicitly introduced through the concept of general competences. Historically, the general trend is towards a deeper exploration of the issues and ways of hidden learning and for giving it a more predictable character in the superseding curricula.

... **informal curriculum.** Here a strange development appears. Whereas the 1921 curriculum disregards the issue, the two following curricula provide recommendations for organizing student homework. Recommendations for class advising and out-of class education also appear in the curriculum of 1937. None of the curricula introduced since 1992 provide any guidelines for out-of-class or -school education, or sees student homework as part of instruction, though the topics themselves have frequently been objects of public debates.

... **implementation.** The general parts of the earlier curricula up to 1996, though mentioning that these documents should be considered as framework and core curricula, provide no formal guidelines for compiling local or school curricula. Only the curricula of 1996 and 2002 are clearly defined as framework documents and are provided with relatively detailed guidelines for compiling school curricula.

### 5.3. Presence and description of major curricular components

**Aims and objectives.** In the curriculum of 1921, the aims and objectives are not explicitly defined. However, the 1928 curriculum pays great attention to define them in its general part as well as in the subject syllabi. In the 1937 curriculum, this aspect again receives less attention. In the curriculum of 1992, the aims and objectives were defined rather vaguely. Yet, in the curricula of 1996 and 2002, an increasing tendency to use aim-oriented teaching and educational ideology appears.

**Content of instruction.** In the general parts of the earlier curricula, including those of 1992, principles and methods for selecting the content of syllabi are not explicitly disclosed. The curricula of 1996 and 2002, where principles underlying the curricula are listed in general parts, introduce systems of competences, cross-curricular themes and aims and objectives. They also provide an advanced coordinating system for the compilation of subject syllabi. But, as already mentioned, these general parts remain very formal and often fail to bridge the gap between the ideals of comprehensive curricular thinking and the rather practice-based subject syllabi.

**Methods of instruction.** The methods of instruction have been to some extent specified but not prescribed in all Estonian curricula in the pre-WW II period. The specifications of recommended instructional methods by school stages appear

again in the general parts of the curricula of 1996 and 2002, but are not founded in a clear conceptual basis.

***Provision for assessing learning outcomes.*** There was essentially no provision in the general parts for assessing learning outcomes in the pre-WW II curricula (as it was not an acknowledged theme then) and in the curriculum of 1992. This theme appears only in the general parts of the 1996 and 2002 curricula as specified recommendations and guidelines for assessing and grading pupils.

#### *5.4. Lucidity of general parts*

The texts of the general parts of the curricula introduced up to 1996 are on the whole easy to understand and remember as general guidelines. On the contrary, the general parts of the last two curricula are rather sophisticated, and a deepening incoherence appears between the general parts and subject syllabi. The conceptual basis of the general parts of these curricula is rather eclectic and formalist. A common deficiency of all the curricula analysed seems to be a chronic avoidance of explaining the reasons for modifications or changes in their next generations of curricula. This complicates the knowledge transfer from earlier curricular work and creates an impression that there is no continuity in this field at all.

## **6. Discussion**

The analysis of the general parts of Estonian curricula revealed that the tradition of providing written curricula with descriptions of cross-curricular ideas has deepened with the progression of time. This happened despite a long period of Soviet rule that imposed quite different educational ideology and traditions of curriculum format.

The provision of curricula with a general part is justified only if its presence improves the transmission of educational and instructional ideas of a curriculum. The capacity of general parts of the analysed curricula to fulfil these functions increases with time. Yet, there are also developments that contradict these aspirations. On the one hand, significant progress appears in the early years of curricular thinking and in the presentation of the key curricular elements, however with some exceptions. On the other hand, the general parts of the earlier Estonian curricula of the pre-WW II period were quite easy to circumscribe and understand, whereas those of the two latest versions are conceptually rather eclectic, incoherent, and difficult to follow as guidelines. But the general parts of the earlier curricula were much less informative than the general parts of the last versions. A common problem with all the Estonian curricula introduced since 1928 is a lack of explanations as to why the changes and modifications were made in the succeeding versions.

The major problem with the general parts of the curricula of 1996 and 2002 is their vague conceptual basis (Opetushallitus 1999). As presented, it does not explain convincingly what the adopted concepts of learning and teaching are.



Another problem is their very complicated conceptualisation of integrative cross-curricular ideas and competences. For example, a comparison with the Finnish curricula for general education reveals that the Estonian approach is principally different from the earlier Finnish framework curriculum for the comprehensive schools (National ..., 1994) and even more different from the current national curriculum for basic education (Finnish ... 2004)

Unlike the Estonian curricula of 1996 and 2002, the integration of instruction and statement of competency requirements are seen as two sides of the same coin in the Finnish curricula. If the inter-curricular issues introduced in the Finnish curriculum of 1994 (National ... 1994) are rather subject centred, then the 2004 version introduces integration and cross-curricular themes that '...represent central emphases of educational and teaching work' (Finnish ... 2004:36). All seven themes for compulsory basic education – growth as a person, cultural identity and interculturalism, media skills and communication, participatory citizenship and entrepreneurship, responsibility for the environment, well-being and a sustainable future, safety and traffic, and technology and the individual – are introduced by short explanatory notes, lists of objectives to be achieved, and recommended core contents of studies.

Of course, many other solutions can be found in the international practice of presenting necessary cross-curricular ideas in a way that the criteria of lucidity, informativeness and practicality were simultaneously satisfied. However, the satisfaction of these criteria cannot be assessed only on a theoretical basis without learning whether the ideas presented in the general parts of curricula are understandable, acceptable and feasible for teachers who are expected to apply them in their work. This means that the further development of the general parts of curricula should be based on empirical research. It would reveal, for example, how the journey from educational policy making to classroom practice would benefit with all parties striving to understand links between the origins of ideological underpinnings and the reality of practice' (Broadhead 2001), or consist in learning teachers' expectations for curriculum emphases (e.g. Van Driel et al. 2008).

## **7. Conclusions**

This study has a two-fold output. Firstly, it informs about the historical experience of presenting cross-curricular ideas in the national curricula of a country. The analysis showed that the tradition of presenting curricular documents as consisting of a general part and subject syllabi begun in 1921 in Estonia. It survived despite the long period of Soviet rule when this curricular format was not acknowledged. Yet, the nature and content of general parts of curricula has significantly changed during this 80-year period. Many of these changes reflect an overall progress in pedagogy and curriculum thinking: advances in stating educational aims and objectives, assessment of learning outcomes becoming a compulsory component of curricula, developing standard and competency-based educational ideology, and needs for a more clear distinction between notions of framework and

school curricula. The other changes, also inspired by ever evolving and diversified educational thinking, reflect the national educational policy and, of course, the curriculum makers' personal understandings and preferences in providing coordinating ideas for instruction and education. More specifically, the analysis showed that the presentation of information concerning adopted educational policy, concepts of learning and teaching, integration of instruction and methodological recommendations in the general parts of earlier curricula was more lucid and easier to follow than in the recent versions of curricula. Furthermore, in some curricular dimensions such as wholeness, a kind of regression appears as the issues of organizing pupils' homework, out-of-class and -school activities, and work with special needs students did not fully reappear in the curricula introduced in the 1990s and later. Yet, the general parts of these curricula suffer from an excessive and biased theorizing that complicates their coordinating role for subject syllabi and instruction. One way to overcome these problems is to investigate teachers' expectations as to what cross-curricular ideas should be reflected in the general parts of curricula and whether they are ready to follow these ideas as guidelines in their work. This means that a transfer to a research-based approach is necessary in Estonian curriculum development for general education.

Secondly, the research methodology of this study can be used for a more extensive comparison of curricular approaches as well. It involves theoretical analysis and the introduction of categories of cross-curricular ideas, reconstruction of the general parts of curricula, the outlining of trends in presenting cross-curricular ideas, and allows drawing parallels with curricular approaches in other countries. In particular, this could be a comparison of presenting cross-curricular ideas in written curricula of one country in different periods of time, or a comparison of curricular solutions between different countries in the same period of time.

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